



REPORT
ON THE
Sanitary Condition
OF THE
County Borough
OF
Birkenhead.
FOR THE YEAR 1917.

BY

R. SYDNEY MARSDEN,

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L.A.H., Dublin (Honoris Causa).

Medical Officer of Health,

Fellow of the Chemical Society, Fellow and Ex-President of the Royal Medical Society, and Hon. Member of the University Natural Science Club, of Edinburgh. Fellow (Ex-President N. W. Branch) of the Incorporated Society of Medical Officers of Health. Fellow and Member of the Council of the Incorporated Institute of Hygiene. School Medical Officer. Supervising Tuberculosis Officer. Physician Superintendent of Birkenhead Hospital for Infectious Diseases, and of the Smallpox Hospital, and Medical Officer to the Mental Deficiency Committee, etc.

BIRKENHEAD:

WILSON & JONES, 92 HAMILTON STREET.

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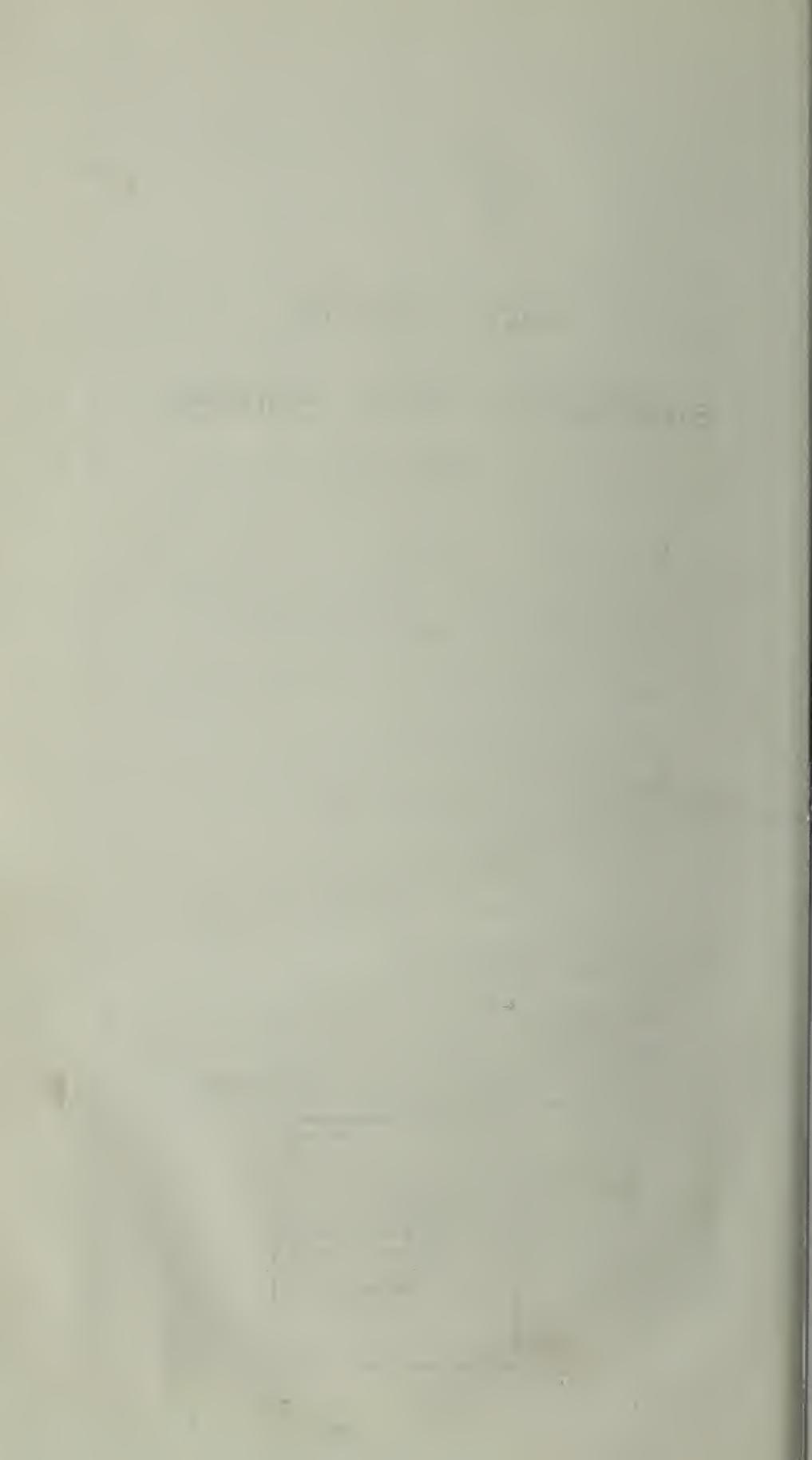
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1918.



HEALTH COMMITTEE
OF THE
BIRKENHEAD TOWN COUNCIL,
1917-18.

MR. ALDERMAN E. G. MASON, J.P., CHAIRMAN.

MR. ALDERMAN THOMAS SHAW, DEPUTY-CHAIRMAN.

MR. ALDERMAN MICHAEL BYRNE (Mayor).

MR. ALDERMAN FREDERICK NAYLOR, J.P.

MR. COUNCILLOR JAMES ASPINALL.

MR. COUNCILLOR M. M FORSYTHE

MR. COUNCILLOR ROBERT FRAME.

MR. COUNCILLOR WILLIAM JACKSON, J.P.

MR. COUNCILLOR W. W. KELLY.

COUNCILLOR ANNIE LAIRD.

MR. COUNCILLOR FRANK TWEEDLE.

MR. COUNCILLOR JOHN PLATT.

MR. COUNCILLOR DAVID ROGER ROWLANDS.

No.
C. No. <u>B.C.V.</u> <u>145</u>
Call. <u>N.G.</u>
Col.

BIB
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CHIEF
OFFICIALS
OF THE
PUBLIC HEALTH DEPARTMENT,
1917.

Medical Officer of Health and Supervising Tuberculosis Officer, &c.
DR. R. SYDNEY MARSDEN, F.R.S. (Edin.), F. Inst. Chem.

Tuberculosis Officer and Assistant M.O.H.
CYRIL BANKS, M.B., B.Surg. (Lond.) D.P.H.

Borough Bacteriologist.
PROFESSOR J. M. BEATTIE, M.D., Ch.M. (Edin.), M.A.,
University of Liverpool.

Borough Analyst.
HERBERT E. DAVIES, M.A. (Camb.), B.Sc. (Lond.), F. Inst. Chem.

Chief Inspector and Inspector under the Food and Drugs Acts.
WILLIAM DAWSON, ASSOC. SAN. INST.

*Assistant Medical Officer and Gynaecologist to the Maternity and
Child Welfare Centre,
and Medical Officer under the V.D. Scheme,*
WILLIAM ROBERT DALZELL, M.A., M.B., Ch.M. (Edin.)



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*To the Mayor, Aldermen, and Council of the
County Borough of Birkenhead.*

LADY AND GENTLEMEN,

In submitting this my 26th Annual Report to the Health Committee, viz., that for the year 1917, it may not be uninteresting to you to have a Summary of the work done by the Public Health Department in its daily routine.

It is no exaggeration to say that our work has almost doubled itself during the past four years, and the passing of new Acts of Parliament, and various Orders which are constantly being issued by the Local Government Board, tends to increase the work still further month by month. But in spite of this extra work, and the difficulties caused by the War, I am still able to record an ever decreasing Death Rate and Infantile Death Rate (both being the lowest yet recorded), and a remarkably healthy condition of the people.

The Housing problem is one of great difficulty here, and there is much overcrowding in a very large number of houses, but by constant and careful supervision the ill effects of this has been minimised and kept in check.

The following is a list of the Acts of Parliament and Government Orders which have to be regularly administered by the Health Department, many of which have come into operation during the last few years :—

The Public Health Act of 1875.

The Sanitary Sections of the Birkenhead Corporation Acts, 1881, 1884, 1891 and 1897.

The Contagious Diseases (Animals) Acts, 1878-1886
(Orders made under this Act *re* Dairies, etc).

The Epidemic and other Diseases Prevention Act,
1883

The Public Health Act (Amendments) Acts 1879-1896
The Infectious Diseases (Notification) Act, 1889.
The Infectious Diseases (Prevention) Act, 1890.
The Housing of the Working Classes Acts, 1890-1903.
The Factory and Workshop Acts, 1891, 1895 and 1901.
The Food and Drugs Acts, 1875, 1879 and 1899.
The Margarine Act, 1887.
The Cleansing of Persons Act, 1897.
The Vaccination Act, 1898, and the Provisional Order respecting Vaccination, 1917.
The Sale of Horse Flesh Regulations Act, 1889.
The Midwives Act, 1902.
The Public Health (Regulations as to Food) Act, 1907.
The Factory and Workshop Act (Laundries Supervision) 1907.
The Notification of Births Act, 1907.
The Public Health Acts (Amendments) Act, 1907.
The Butter and Margarine Act, 1907.
The Housing, Town Planning, etc., Act, 1909.
The Rag Flock Act, 1911.
The Shops Acts, 1912 and 1913.
The National Insurance Act, 1911 (Tuberculosis Provisions).
The Mental Deficiency Act, 1913.
The Milk and Dairies Act, 1914.
The Venereal Diseases Act, 1916, and subsequent Regulations, and the following Regulations, issued by Orders of the Local Government Board, viz :—
The Sale of Milk Regulations, 1901.
The Public Health (Milk and Cream) Regulations, 1912.
The Public Health (Tuberculosis) Regulations, 1908, 1911, 1912 and 1916.

The Diphtheria (Anti-toxin) Order, 1910.
 The Order respecting the notification of Ophthalmia Neonatorum, 1914.
 The Order for notification of Measles and German Measles, 1915.
 The Regulations for notification of Cerebro-spinal Meningitis and Acute Poliomyelitis, 1915.
 Order respecting return of deaths in connection with National Registration Act, 1915.
 Orders of the Food Controller and Local Government Board as to supply of milk for expectant and nursing mothers and infants, 1917.

It will thus be seen that the work performed under your direction is no mere pretence; and when we consider the number of interests involved, and the many difficulties which have to be overcome, I must congratulate the Health Committee on the proportionately very small amount of litigation which we have had to encounter. The work done, and the results achieved must, I think, be regarded as satisfactory.

This Report is on similar lines to my previous ones, as it lends itself to convenience of reference.

I am much indebted to Mr. William Dawson, the Chief Inspector, to Mr. John Owen, my Statistical Clerk, and other members of my staff, for the assistance they have given me in preparing this report.

I have the honour to be,
 Lady and Gentlemen,
 Your obedient servant,
 R. SYDNEY MARSDEN,
Medical Officer of Health

PUBLIC HEALTH DEPARTMENT,
 TOWN HALL,
 14th April, 1918.

COUNTY BOROUGH OF BIRKENHEAD
DURING 1917.

SHORT SUMMARY.

Area in Acres	3,850, or a little more than 6 sq. miles.
Population (at Midsummer)	144,993
No. of Inhabited Houses (Police estimate).....	26,834
Number of Inhabited Houses at time of Census, 1911	24,343
Number of Persons per House at time of Census, 1911	5.3
Rateable Value	£721,683
1d. in the £ yielded for General Purposes	£2,820
1d. in the £ yielded for Sanitary purposes	£2,550
Number of Persons per Acre (Density of Population)	37.6
Birth Rate per 1,000 living	22.4
Death Rate do.	13.3
Zymotic Death Rate per 1,000 living	0.8
Phthisis Death Rate do.	1.1
Average Death Rate last 10 years	15.0
Deaths of Children under 1 year of age to 1,000 Births	95
Percentage of Uncertified Deaths	0.62
Houses provided with Ashbins (approximately)	19,469
Houses provided with Ashpits do.	7,331
All the houses are provided with w.c's. with the exception of about 18 which have privies. 12 of these are not used. The 6 are in places where at present w.c's. cannot be provided. There are 3 earth closets in Oxton.	

THE SANITARY CONDITION
OF THE
COUNTY BOROUGH OF BIRKENHEAD
DURING 1917.

*Report of the Medical Officer of Health to the
Health Committee.*

Again I am able to report that the Health of the Borough, as estimated by the general mortality, during the year 1917, was in a most satisfactory condition, the Death rate of 13.3 per 1,000 being the lowest ever recorded, and 0.9 less than the low rate of last year. 102 fewer deaths occurred than in 1916.

The Infantile Death rate, 95 per 1000 births, is also the lowest yet recorded, and 10 per 1000 lower than last year. This must be regarded as highly satisfactory, showing as it does a gradually steady decrease year by year, 94 less infant deaths being registered. The Zymotic death rate is also a low one, 0.8 per 1000, but the Phthisis rate remains practically the same as last year. I cannot give comparisons with other towns this year as I have been unable to get the information.

The birth rate for the year, 22.4, is 4.5 less than last year, but is one of the highest rates in the country, but there were some 587 less births registered than in 1916.

ESTIMATE OF THE POPULATION.

For the purposes of this Annual Report an estimate is required of the number of persons living at Midsummer, 1917, and I have estimated that on the 30th June of that year the population was 144,993, and on this estimate have based the statistics in this report.

There are no empty cottage houses available, and even amongst the larger private houses there were 45 less unoccupied on the 30th June, 1917, than there were a year before. Many of

these have been taken and (even in good parts of the town) are let off in rooms and occupied by a number of different families.

Taking all these facts into consideration, I am confident that my estimate of the population is not in excess. The number of births registered is some 500 less, but is a fairly good rate, the excess of births over deaths being 1329.

THE REGISTRAR GENERAL'S ESTIMATE OF POPULATION.

I have received a communication from the Registrar General saying that the following estimates of population have been adopted in his Office for the calculation of the death rate and birth rate in the Borough of Birkenhead for the year 1917, viz:—

For the death rate....133,819

For the birth rate....149,170

The former is an estimate of the civilian population, the latter of the total population based on the assumption that the ratio between the total and the civilian population is the same in the Borough as in England and Wales as a whole. With a view to approximation to the population amongst which the births have occurred, the total population of England and Wales for this purpose has been calculated by adding to the published estimate for 1914 the natural increase up to the middle of the year 1917.

A statement, shewing a summary of the vital statistics for England and Wales and for groups of towns during 1917, is here given (see next page).

In accordance with the Registrar General's request I give the following return:—

Population as per Registrar General	No. of persons per acre	Birth Rate	Death Rate	Zymotic Death Rate	Phthisis Death Rate	Infantile Mortality per 1000 Births
133,819	34.7	21.8	14.4	0.8	1.2	95

For the reasons given in my Report for 1915 (p. 10) I totally disagree with this method of estimation.

Table shewing the Birth-rate, Death-rate and Analysis of Mortality during the Year 1917.

(Provisional figures. Populations estimated to the middle of 1917 have been used for the purpose of this Table).

	BIRTH-RATE per 1000 TOTAL POPULATION	ANNUAL DEATH-RATE PER 1000 CIVILIAN POPULATION*						RATE PER 1000 Births	PERCENTAGE OF TOTAL DEATHS*			
		All Causes	Enteric Feaver	Measles	Small-pox	Scarlet Fever	Whooping-cough	Diarrhoea and Enteritis (under 2 Years)	Total Deaths under One Year	Certified Deaths in Public Institutions	Deaths in Institutes of Disease	Uncertified Deaths of Disease
England and Wales	17.8	14.4	0.03	0.00	0.30	0.02	0.13	0.13	0.52	12.18	97	25.7
96 Great Towns, including London (Census Popula- tions exceeding 50,000).	18.1	14.6	0.02	0.00	0.41	0.03	0.15	0.13	0.53	16.14	104	31.2
148 Smaller Towns (Census Populations 20000-50000)	18.0	13.2	0.03	..	0.30	0.02	0.15	0.13	0.45	10.08	93	17.5
London	17.5	15.0	0.02	..	0.48	0.02	0.13	0.14	0.59	18.70	103	47.1
..

* Non-civilians are included in these figures for England and Wales but not for other areas.

This Table has been kindly supplied to me by the Registrar General.

HOUSING OF THE WORKING CLASSES.

In my 1913 Report (p. 9) I gave a short history of the subject of "Housing" in the Borough up to the end of that year, and a great deal of work has been done since then as reported year by year in my subsequent reports.

The question of "Housing" in the Borough has now become one of most pressing importance, a minimum of 1,500 working class dwellings being required to meet the demand. Owing to the large influx of men and families into the town, due to the extension and increase of work at Messrs. Cammell, Laird & Co., Messrs. Grayson & Co., and other firms, the present number of houses in the town is totally unequal to the demand, and the Committee recognising this fact, have devoted much time and labour to the consideration of schemes which may be proceeded with immediately the war is over and the Local Government Board will give their sanction for the work to be gone on with. The difficulties at the present being specially connected with the shortage of labour and materials, and also of getting money in these times.

Now what are the classes for which the Health Authorities ought to provide in regard to housing, and what class of house should be provided?

The question is not altogether a simple one, as the economic side of it enters into the subject in a very prominent manner, and in fact puts a limit on to your powers of action.

The object of re-housing from the Health Authorities' point of view is, of course, the abolishing of slums, over-crowding, and such conditions as tend to the weakening and deterioration of the people in their present homes and the social raising of the poorer classes and the "submerged tenth" so far as this can be accomplished—and the problem is how are you going to provide for the following sets of people?

- 1st. There is the person who cannot afford to pay more than from 2/6 to 5/- a week rent.
- 2nd. There is the poor man with a large family and who cannot hope to pay such a rent as will enable him to occupy a house of the necessary room accommodation.
- 3rd. There is the housing of a family in which one of the members (perhaps the breadwinner) is ailing from some disease, such as Phthisis (or consumption), and whom it is desirable should have a separate sleeping room from the rest of the family.
- 4th. There is the person who cannot afford to pay more than 7/6 per week rent.

We all know that the Government are proposing to give substantial aid towards the erection of more houses, and the question is as to what amount of rented house will this grant be given?

I do not think that houses above £20 a year rental (or 7/6 per week) will be allowed to be provided out of any Government funds, and the question is as to what can you provide for people who can only pay 3/- to 3/6 a week.

Housing does not merely consist of putting people into so many rooms with a roof over their heads, but in the provision of suitability of arrangements for the purposes of life and sufficiency of facilities for decency of living.

I find that in this Borough at the present time 45.4 per cent. of the houses are assessed at 7/6 a week and under, and of these over 30 per cent. are assessed at under 5/- per week, and I take it this will be about the proportion in most large towns and urban districts in the Country.

The great difficulty which we have to meet is the housing of this latter section, particularly of the lowest

grades, who cannot afford to pay more than from 2/6 to 4/- a week, and who are now housed in separate rooms in larger dwellings, or in old dilapidated houses, which have none of the conveniences offered to them which are necessary for decent living.

In demolishing 88 houses recently in the Borough, and thereby dispossessing some 230 people,

46.6 % of the people paid only 2/6 a week.

20.4 % " " 3/- "

9.0 % " " 3/6 "

16.0 % " " between 4/- and 5/- a week.

5.6 % " " 5/6 a week
(this included a shop).

Now how are these people to be provided for?

I am of the opinion that it is impossible to provide separate dwellings at such prices except on the "Flat" or "Tenement" system, and in providing these houses certain things have to be considered.

1st. There must be a decent living room with a small scullery off if possible—and one, two, three, or four bedrooms according to the family you are going to provide for.

2nd. There must be a separate food store against an outer wall with proper light and ventilation into it.

3rd. There ought to be a separate w.c., a decent sink, and a bath provided to aid in cleanliness.

But it is no use providing baths for these people so long as they have to provide hot water by boiling it on a fire in kettles or pans, because they cannot afford the coal, nor will they take the trouble to provide a sufficient quantity of hot water to make the bath hot—and for the same reasons they do not provide sufficient hot water for washing the ordinary food utensils—and the result would be that they would continue to exist in the new houses in

the same dirty, filthy, shiftless, hand-to-hand manner of living they now do, a condition of things which is totally detrimental to the decencies of life and the health of the community.

I suggest that the only way to meet the difficulty is by a central heating system whereby hot water could be provided at cost price and laid on to the dwelling in the same way as cold water and gas are provided; a small cost-price charge being added to the rent to cover this hot water. The matter would be a simple one as regards tenement dwellings, but might be a little more difficult in the case of separate houses (at, say, 7/6 a week) built in streets or round a square.

Then, having provided the people with baths, hot water and the means of being clean, to insist on them using the facilities, and educate them by Sanitary Police or Health Visitors, and thus raise them to a higher standard of living. We cannot expect that there will be an instant transformation scene, but everything must have a beginning; provide facilities first, and then educate the people to use them.

But what about Town Planning, limitation of the number of houses and population to the acre, ample air space and garden accommodation?—very desirable things in themselves, but, in my opinion, impossible in connection with the housing of people who can only pay rents below 7/6 a week.

It is suggested that not more than 10 to 14 houses should be allowed per acre in any new housing scheme, a very desirable thing if land is cheap and there is plenty of it to be got. But if you have to pay from 3/- to 5/- per yard for your land, that means from £726 to £1,210 per acre, which is £72 10s. od. or £121 0s. od. per house site if only ten houses are put on, or £52 and £90 respectively if fourteen houses are allowed. You thus start with an initial ground rent of from 50/- to 90/- per house

before building operations commence, and when the cost of laying out the sites, and making sewerage and paving the streets, &c., is completed, and on the top of this from £250 to £300 per house for building, how is an economic rent going to be obtained from such schemes? There is bound to be a very heavy loss, which will have to be made up out of the rates—and thus one part of the community will have to pay a considerable share of the cost so that the other half may live in ideal conditions which it is not able and would probably not be willing to pay for out of its own pocket.

There is a limit to your power of taking people from the centre of the town to its periphery. Not only is there the expense of getting in and out by tram or train, but there is also the economical question of the time which must be spent in getting to and from such places, which at 5 a.m. on a winter morning is a consideration.

When you pull down slum property or re-model existing blocks of houses or have to utilise small plots of ground in the centre of your Town, you have not the ground at your disposal for idealistic schemes which we should all like to see carried out if feasible, and if the population of this country was not quite so dense as it is.

The Health Committee has considered many plans of different types of houses and tenement dwellings showing how it is proposed to deal with the different classes of tenants, above referred to.

The architectural work has been carried out by Mr. T. T. Rees, F.R.I.B.A., who acts as Special Architect for Housing under the Committee.

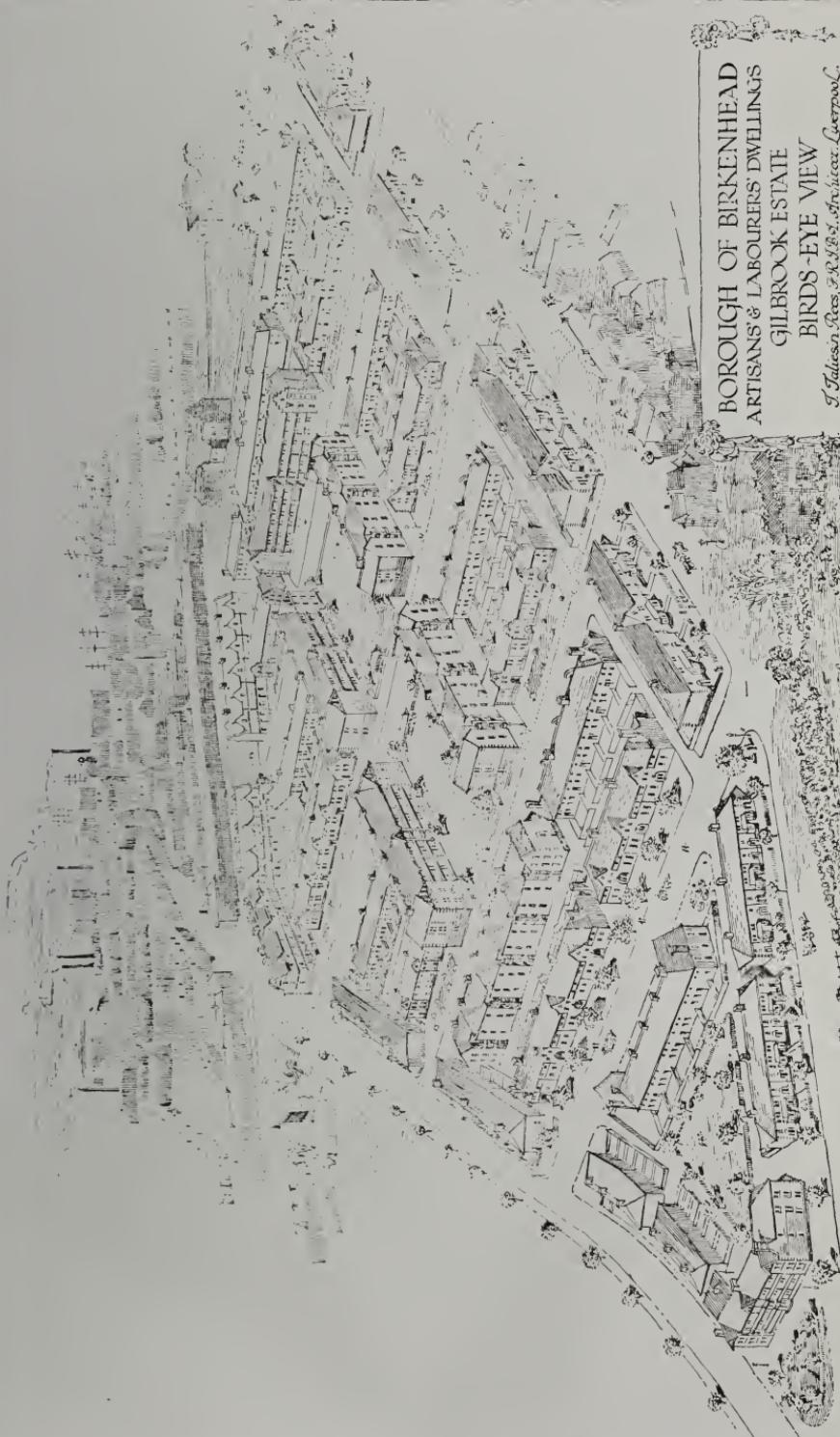
There are several pieces of land owned by the Corporation which offer suitable sites for building, and schemes for the utilization of these sites have been drawn up, and I am able to give copies of the plans, &c., showing how we propose the different plots should be dealt with.

BOROUGH OF BIRKENHEAD
ARTISANS' & LABOURERS' DWELLINGS

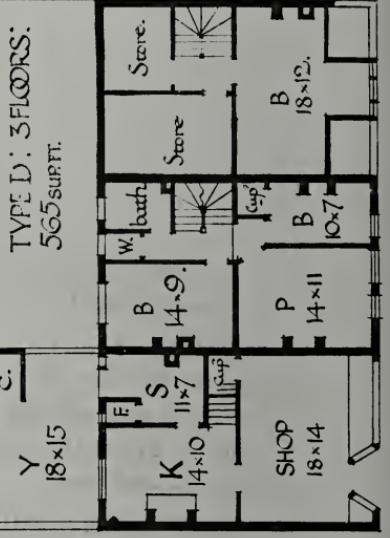
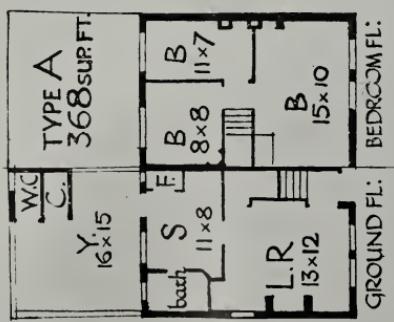
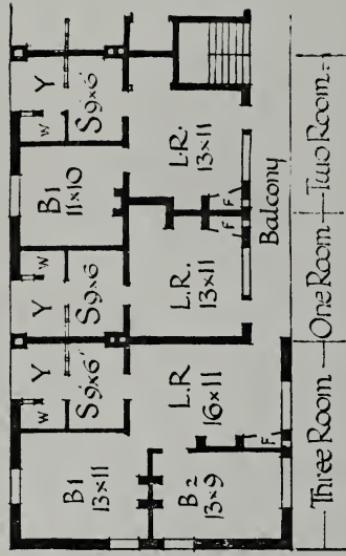
GILBROOK ESTATE

BIRDS-EYE VIEW

J. Tolson, Res. Architect, Birkenhead, Liverpool.



TYPE C : THREE-STOREY FLATS



GILBROOK HOUSING SCHEME

GILBROOK ESTATE HOUSING SCHEME.

This estate was laid out in 1886, and the streets made, sewered, curbed, and channelled. These streets have been retained, and the buildings planned and arranged to suit them.

The land is bounded on the South side by Norman Street and Upper Brassey Street, on the West by Lansdowne Road, on the North by Laird Street, and on the East by the Laird Street Schools and playground, and the end of certain houses on the North side of Upper Brassey Street.

The site having been carefully surveyed and levels taken by Mr. Rees, the number and type of houses to be erected was settled according to the following Schedule, which gives the correct number of houses in the different blocks and flats.

From this it will be seen that we get:—

- 10 blocks containing 64 houses of Type A (small).
- 7 blocks containing 40 houses of Type A (large).
- 10 blocks containing 60 houses of Type B.
- 7 blocks of flats, containing 120 separate dwellings of the different Types C.
- 2 blocks of 15 shops of Type D.

Total number of dwellings ... 299.

Type A (small) are shewn to consist of self-contained dwellings, having an average frontage of 16 feet, and a depth of 38 feet, including yard, but exclusive of fore court and passage. Each house contains on the

Ground floor...Living Room, 13ft. by 11ft. 3ins.

Scullery, with Boiler, 7ft. 10 $\frac{1}{2}$ in. by 8ft.

Bathroom(separate), 6ft. 9ins. by 4ft. 6ins.

Food Store, 4ft. by 2ft.

Store under Stairs.

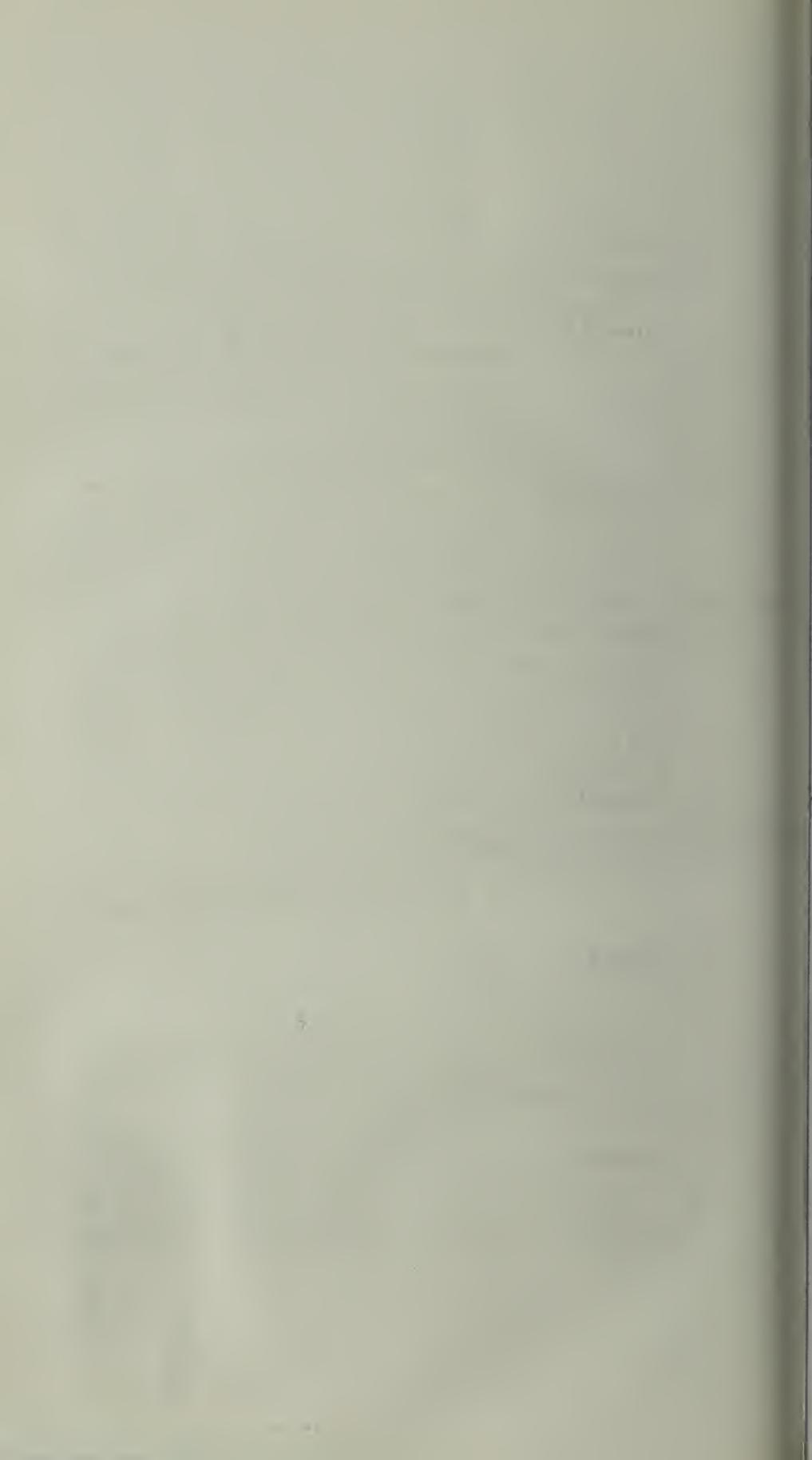
Porch to Front Entrance.

First Floor ...Bedroom, front, 15ft. 3ins. by 9ft. 10 $\frac{1}{2}$ ins.

Bedroom, back, 11ft. 3ins. by 6ft. 6ins.

Bedroom, back, 8ft. by 8ft. 6ins.

W.C., Coals, and Ashes in yard.



Type A (large) are self-contained dwellings, with an average frontage of 17ft. 6ins., and a depth of 38ft., including yard, but exclusive of fore court and passage.

The accommodation is as follows:—

Ground Floor ..Living Room, 13ft. by 13ft.

Scullery, with Boiler, 9ft. by 7ft. 10ins.

Bathroom (separate), 6ft. 6ins. by 4ft. 10ins.

Larder Food Store, 4ft. 6ins. by 2ft. 9ins.

Store under Stairs.

Porch and Front Entrance.

First Floor ...Bedroom, front, 16ft. 10ins. by 10ft. 1in.

Bedroom, back, 8ft. by 7ft. 10 $\frac{1}{2}$ ins.

Bedroom, back, 8ft. 6ins. by 11ft.

W.C., Coals, and Ashbin in yard.

Type B show the houses which are planned to face Brassey Street, Norman Street, and Lansdowne Road. They are larger than Type A, and contain an extra room, viz., Parlour with bay window. The frontage to each house is 17ft. 6ins., and the average depth, including yard and small garden plot in front, but exclusive of passage, is 57ft. 6ins. Each house contains on the

Ground Floor ..Kitchen, 14ft. 9ins. by 10ft. 6ins.

Parlour, 10ft. 6ins. by 10ft. 3ins.

Scullery.

Food Cupboard and Store.

In the end Houses Bathrooms are provided on Ground Floor.

First FloorBedroom, 13ft. 4ins. by 10ft. 4 $\frac{1}{2}$ ins.

Bedroom, 11ft. 9ins. by 10ft. 4 $\frac{1}{2}$ ins.

Bedroom, 10ft. by 6ft.

An alternative plan will be carried out in certain of the Type B houses, in which the Bathroom will be on the upper floor, adjoining the back bedroom.

Flats, Type C.—Seven blocks of flats have been arranged for, six overlooking the playgrounds, and one at the junction of Norman Street and Lansdowne Road.

The two blocks of flats facing the playgrounds each contain 12 three-room houses, consisting of Living Room,

two Bedrooms, and Scullery, and 6 two-room ones consisting of Living Room, Bedroom, and Scullery.

Four other blocks of flats each contain 6 three-room dwellings, 6 two-room, and 6 one-room.

And one block of flats provides for 12 three-room dwellings.

N.B.—The Scullery is not counted as a room in these flats.

The average sizes of rooms to each flat will be:—

Living Room, 13ft. 6ins. by 12ft. 3ins.

Bedroom, 11ft. 6ins. by 10ft. 6ins.

Bedroom, 12ft. 3ins. by 9ft. 3ins.

Scullery, with Boiler, Bath, and Sink.

A small yard with W.C. and Dust Shoot is provided for each house in the flat.

All the houses in the flats are entered from balconies, which are reached by a central stone staircase.

It is impossible in houses of this description to give a separate room for the bath as in self-contained houses.

The two blocks of ground, fronting Laird Street, have been reserved, giving sites for 15 shops with 18ft. 6ins. frontages.

Each will have

Shop 17ft. 8ins. by 14ft.

Living Room ... 14ft. 2ins. by 10ft.

Scullery 10ft. 9ins. by 7ft. 4ins.

Sitting Room ... 14ft. by 10ft. 6ins.

Bedroom 13ft. 9ins. by 9ft.

Bedroom 10ft. 9ins. by 6ft. 9ins.

Bathroom 7ft. 9ins. by 5ft.

Attic 17ft. 8ins. by 12ft.

Coals, Ashbin, and W.C. in Yard.

All the self-contained houses will have back boiler to Kitchen fireplace for hot water supply, but a Central Heating Apparatus with boiler will be provided in an apartment in the basement of each block of flats, which will give a continuous supply of Hot Water, and will be charged for in a slightly increased rental. These boilers will require the attention of one or more Keepers.

The question of lighting has been very carefully considered. Gas will be laid on to each of the houses, and pipes carried to a suitable position in Scullery for a small gas cooker or ring.

If Electricity can be obtained at a rate which would compete with Gas, including renewal of Lamps, &c., some of the better houses may be wired for same. Although a more costly installation, I consider it will be cleaner and healthier for the tenants than gas.

In the flats, the floors, staircases, and balconies will be fireproof throughout. The living rooms and bedrooms will have boarded floors, laid on coke breeze concrete, and the scullery and yards will be finished in cement.

The Cottages will have joist and boarded floors to living rooms and bedrooms, and cement finish to scullery, yards, &c.

The walls internally will be plastered, except bathrooms, larders, &c., which will be flat pointed for colour wash.

Where the Cottages are set back from building line, it is proposed to cover the space with concrete and throw the extra width into the footway, making a good open space in front of each block. Trees could be planted at intervals, and if properly cared for, would, I am sure, thrive and be much appreciated by tenants.

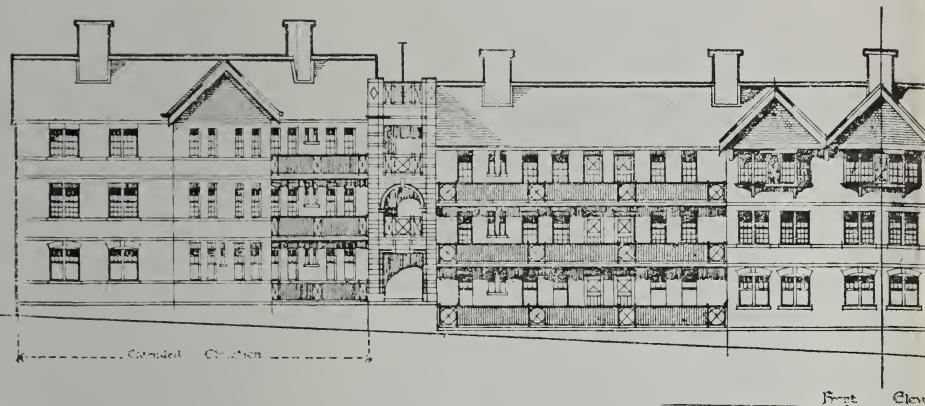
At the corner of Lansdowne Road and Norman Street, a circular shrubbery is shewn (enclosed in iron fencing), which will enhance the appearance of this part of the Estate.

Enclosed Playgrounds are shewn for boys and girls, with shelters, and lavatories. The large Playground to Brassey Street will probably be reserved for young children.

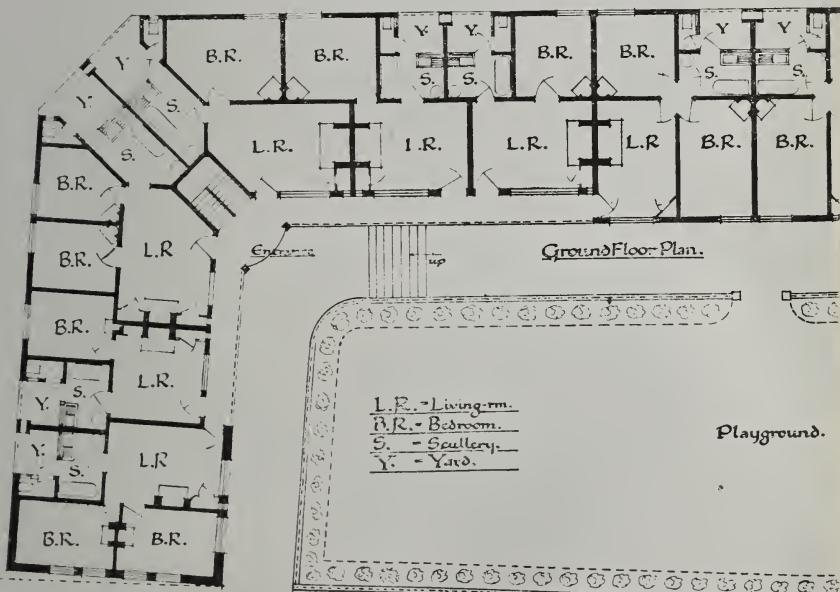
These would be fitted with swings and see-saws, and partially planted.

It will be seen that in our model scheme at Gilbrook there are a number of houses on the outer fringe of the estate providing separate houses at 8/6 a week, and others

BOROUGH OF BIRK
CHESTER ST. HOUSES
Elevation of Flats



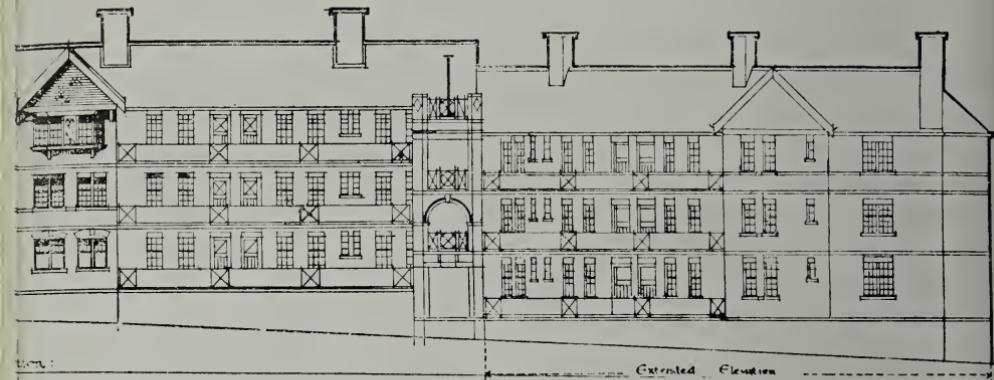
15 foot Passage-way.



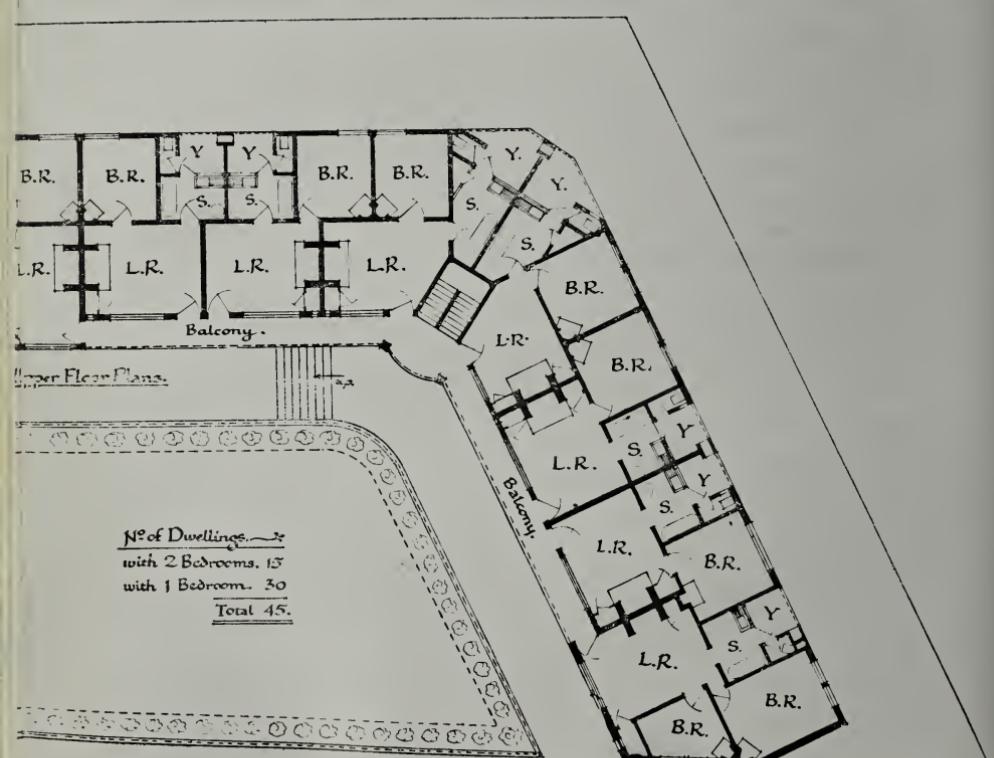
BOROUGH OF BIRKENHEAD 1917.
Proposed Dwellings, Chester Street :
1/8 Scale Sketch Plans:



W. HEAD.
J. A. THOMAS
& SONS:
Scale:



Extended Elevation



No. of Dwellings
with 2 Bedrooms. 15
with 1 Bedroom. 30
Total 45.

70 80 90 100 feet:

T. T. Rees, FRIBA, ESJ:
51, John Street, Liverpool:
26 Sept 1917:

a little smaller at 7/6 a week. These are small houses of the ordinary type with all the necessary conveniences above referred to, except the provision of the hot water—and I need say nothing more respecting them here. Conveniently arranged in the centre of these blocks of houses are a series of three-storied tenement dwellings, arranged round large squares which provide playing grounds for the children and ample air space round the buildings. The dwellings in these flats are all separate and self-contained, and have all the facilities provided to which I have already referred.

THE CHESTER STREET AREA.

There is a very great demand for houses in this neighbourhood owing to its proximity to Messrs. Cammell, Laird & Co.'s Works, and much overcrowding exists in the houses in this vicinity.

The scheme of Workmen's Flats here submitted would provide very urgently needed accommodation, and be an immense boon as the rents would be comparatively low.

The provision made would be:—

15 Self-contained Dwellings, with Living Room, Scullery, Gas Boiler, Bath, small Yard and Conveniences, and two Bedrooms.

30 Self-contained Dwellings with the same accommodation, but only one Bedroom.

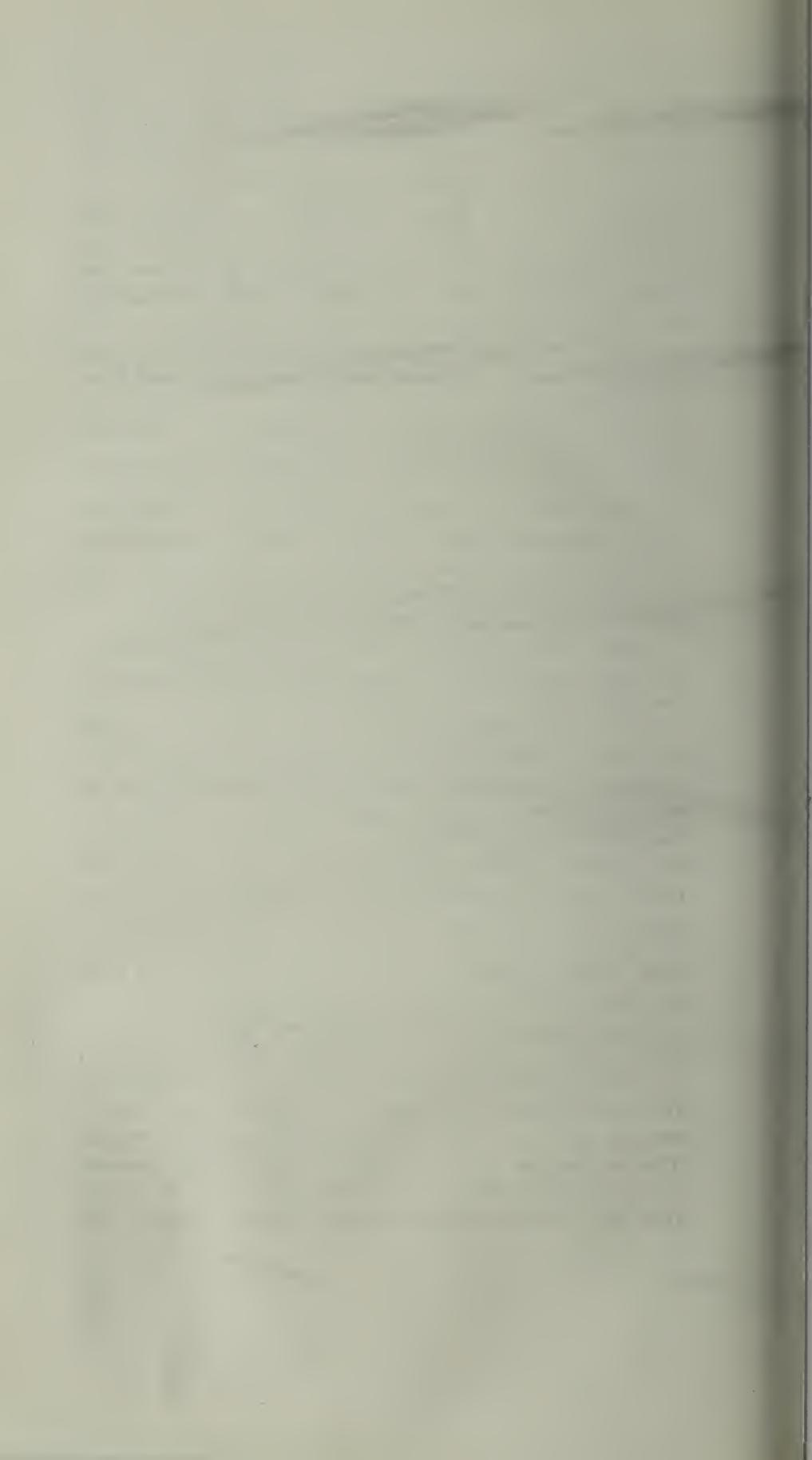
A central Hot Water System will be installed.

There is a wide space in front of the buildings which will provide a good recreation ground, and give ample air space, this latter being increased by the wide thoroughfare of Chester Street.

At the back a 15ft. passage goes round the whole of the buildings, and this passage abuts at present on railway sidings. The plans here submitted show the elevation and the arrangement of the dwellings.

The site is one from which a quantity of old and insanitary property was cleared some years ago.

Another site from which some old insanitary property was cleared (then known as Ross Terrace), constitutes



THE CAMDEN STREET AREA

(corner of Camden Street and Brook Street). It is also situated in a district where there is a great demand for houses, being in close proximity to the docks, and the scheme submitted shows 18 SELF-CONTAINED DWELLINGS, viz. :—

Six Dwellings, with Living Room, two Bedrooms, Scullery, Gas Boiler, Bath, a small Yard and Conveniences.

Six Dwellings, with Living Room, one Bedroom, Scullery, Bath, Gas Boiler, and Conveniences as before.

Six Dwellings, with Living Room and Bedroom combined, Scullery, Bath, and Conveniences as before.

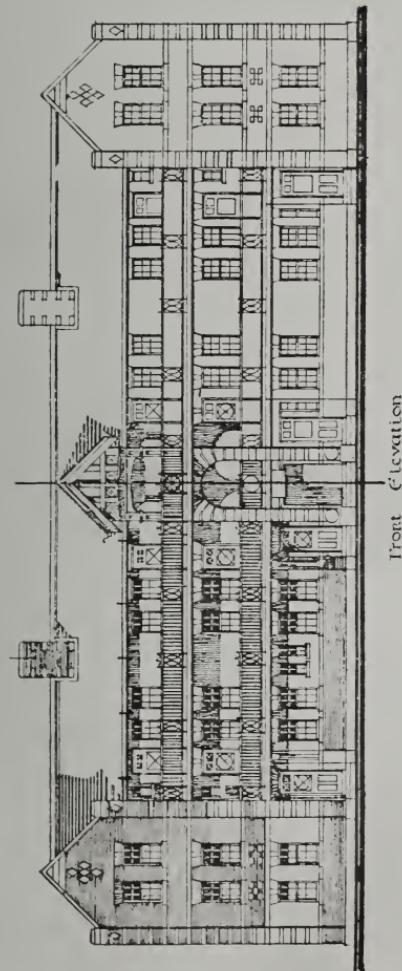
There is ample air space round these houses, and they would supply a greatly felt want.

There will not be any central heating in this block, as the cost would be out of proportion for a small scheme of this description.

But I must expressly state that as regards the cost of the land on which the houses and tenements in such schemes as provide low-rented dwellings have to be erected, whether it is got by purchase of fresh land or by the demolition of old buildings in slum areas—so far as the housing schemes are concerned, in my opinion, the primary cost of the land must be considered as a dead loss on the scheme, and will have to be provided for out of the rates as a health matter, the rents yielded not being more than sufficient to provide for the upkeep and sinking fund on the buildings themselves.

The schemes here submitted show how the poorest tenants can be decently provided for down to a rental of 3/- per week, but we have still to deal with the man who from the number of his family is unable to pay such a rent as will give him the necessary number of rooms. This we propose to do: on the top flat of the tenement dwellings either by so constructing the roof (in a way that will economise the, at present, lost air space in the

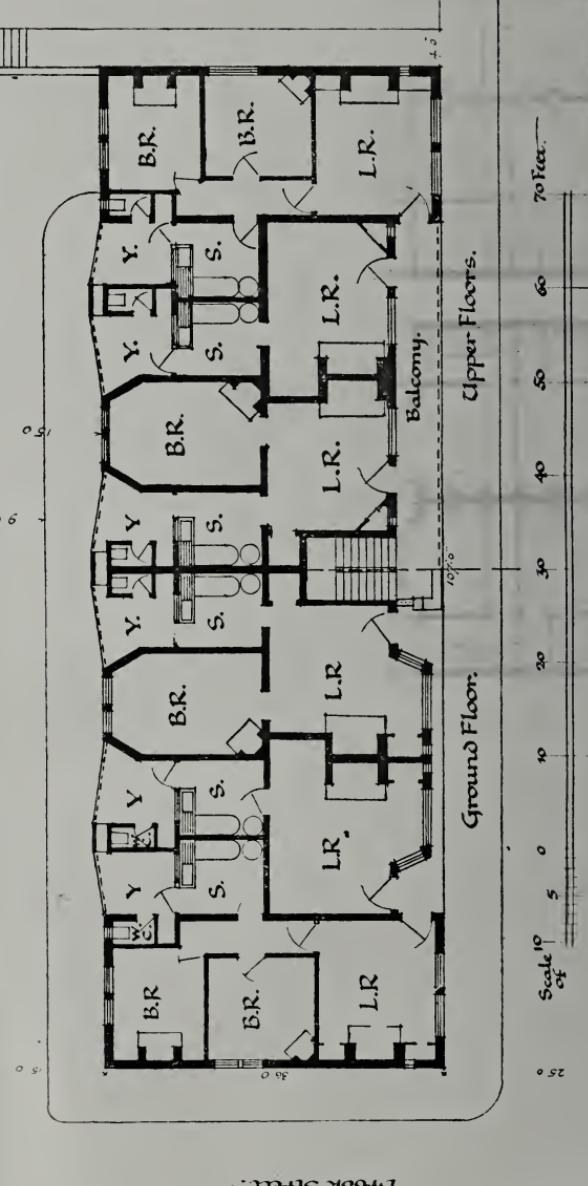
BOROUGH OF BIRKENHEAD, 1917.
Approved Dwelling's Council Street Selected Plans.



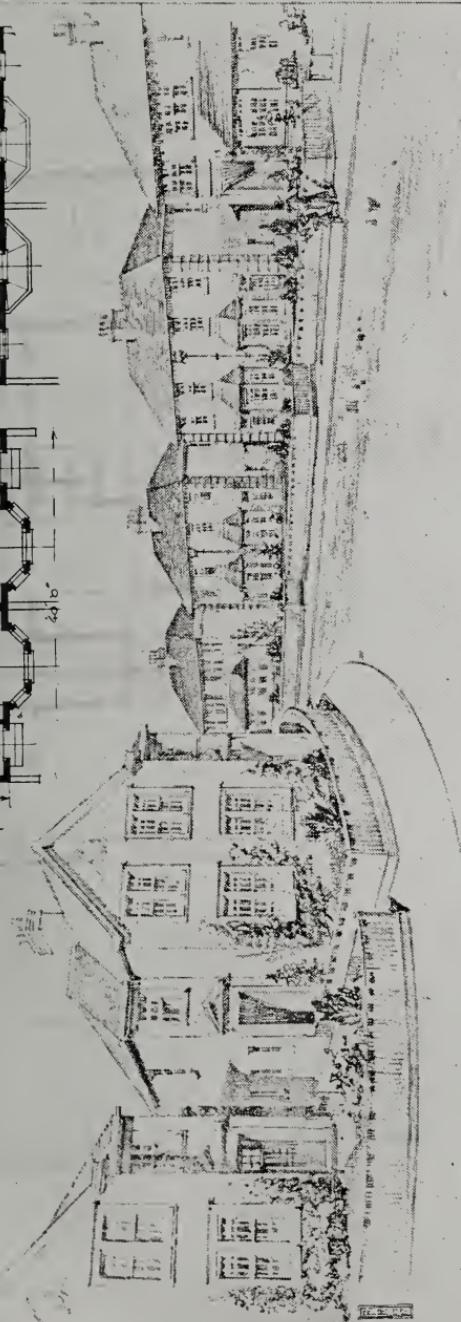
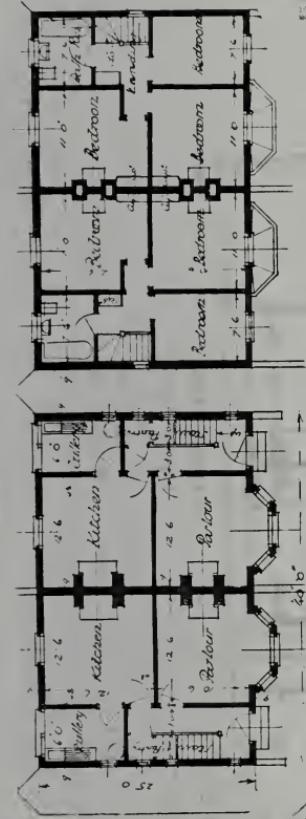
RECORDED
21N. John St.;
Liverpool: 22 Sep 17

BOROUGH OF BIRKENHEAD, 1917.
Proposed Dwellings Camden St. & Brook St. Sketch Plans.

No of Dwellings:
with 2 Bathrooms, 6
1 Bathroom, 5
Living Room, 5
Total 18



TTR&S, FRIBA: FSI
51, John St.
Liverpool: 24 Sep 17.

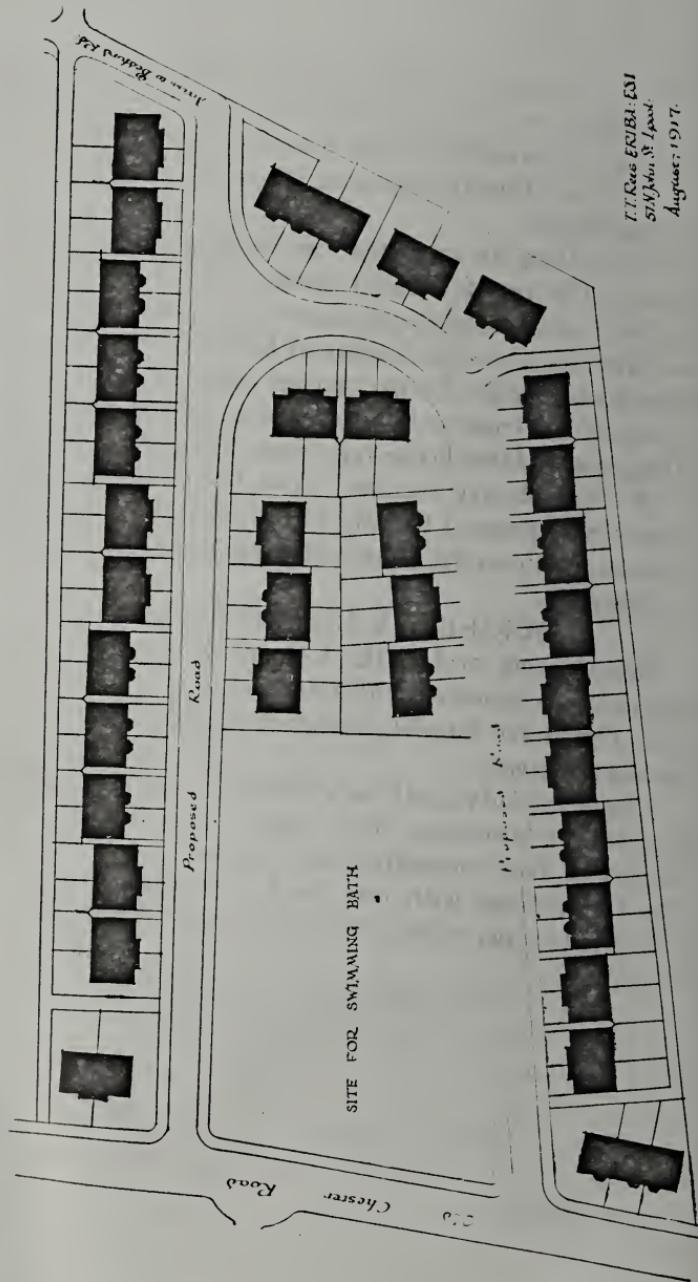


PROPOSED
HOUSING SCHEME,
ROCK FERRY,
BIRKENHEAD.

Architects
C. & J. R. TOWNSEND

BOROUGH of BIRKENHEAD.
ROCKFERRY HOUSING SCHEME.
Block Plan to a Scale of $\frac{1}{4000}$.

Scale of 1000 feet



F. T. Ross Esq. RA: F.R.I.B.A.
Surveyor, S. Lancs.
August 1917.

roofs) that two or three extra small sleeping apartments can be provided, and reserving these dwellings for men with large families at very little extra rent—or as an alternative, there might be at the end of each block of tenements a fourth turret story providing rooms for this purpose.

Again it is suggested that some of the tenements might be provided with flat roofs on which a special wooden room can be provided for the case of a consumptive member of a poor family requiring separate and out-of-doors accommodation.

So far then as concerns the housing of the poorer classes of the people; and I think I have shown above how this can reasonably be done—but public opinion is now advancing on the subject of housing for the working classes and people of small means who cannot afford to pay more than from 10/6 to 12/6 a week rent, but who up to the present time have not been adequately provided for by the ordinary builder. And the Health Committee is now being pressed to help in the provision of this class of house, which ought to be self-supporting if these rents are obtained.

ROCK FERRY HOUSING SCHEME.

The Markets and Baths Committee had a piece of surplus land connected with their South-end Baths scheme, which they have handed over to the Health Committee for housing purposes.

This site lends itself very effectively for the erection of the class of dwellings now under consideration, and the Committee has considered and approved of a proposed plan for dealing with this land as shown in the accompanying designs, which give particulars of the accommodation.

It will be seen that these provide for

33 blocks of semi-detached Houses.

2 blocks of three Houses each.

A total of 72 separate Houses.

This is looked upon as a beginning, and may be developed later into larger schemes if this one is found to be successful.

Thus I think I have shown how we can provide for the different classes to which I have alluded.

Closely associated with this subject is the present method of converting large old houses into separate dwellings for the very poor, let off into one, two or three rooms to each family according to what they can afford to pay, but which, as you all know, have no conveniences for decency of living; are hot-beds for the producing and spreading of fevers, and are altogether totally unsuitable to a civilised community in the present day.

In my opinion, the Sanitary Authorities ought to move at once to obtain powers to prevent people converting houses of the kind I have mentioned to such uses until they have been properly reconstructed to meet the requirements of decency and suitability for their purpose.

As I have already said, there is a great demand and there will shortly be a great boom in the building of workmen's houses of the higher rents of from 8/6 to 14/- a week rental, and which, in my opinion, ought to be, and will be, provided by the ordinary builder if proper facilities are given to him.

I have frequently thought that this building of new houses by private people would be much increased if the enormous proportion of cost, incurred by the laying out and construction of the roads in the laying out of new areas was taken from his shoulders.

The estates when built upon become valuable to the Sanitary Authorities as rate-producing factors—the roads become public property, and once they are completed and handed over to the Town cannot be reclaimed. Under these circumstances, if the owner gives the land, surely the Sanitary Authority might reasonably bear the whole or part of the cost of the sewerage, channelling, and making the roads. In this way the builder would be saved a great deal of expense, and be able to give a much better house for the rental to be charged, and which would then be insisted upon.

MATERNITY AND CHILD WELFARE.

It will be remembered that in relation to this matter I gave a very full account of our proposed scheme and its methods of working in my Report for 1915 (pp. 11-13), and I do not, therefore, feel called upon to repeat it again here.

There are 4 beds reserved at the Borough Hospital for cases from the Centre, and 136 cases were treated there during the year. We also have 3 beds reserved in the Baby Wards at Leasowe Hospital, and 11 cases were sent there during the six months these beds were available.

Dr. Wm. R. Dalzell attends at the Centre Clinic two days a week and sees all cases requiring treatment.

The following work has been carried out at the Centre during the year, viz :

931 cases visited the Centre for the first time and
8249 re-visits were made by old cases.

40 expectant mothers paid first visits and
70 re-visits were made.

93 Mothers paid first visits in connection with post-natal trouble and

173 re-visits were made.

737 Infants were seen for the first time.

1039 Infants paid re-visits.

2 operations were performed at the Centre and
136 cases were sent into the beds at the Borough Hospital for operation.

15 Infants received treatment at the centre and
76 re-visits were made in connection therewith.

Other agencies at work, which are of importance in relation to this subject, I think should be referred to.

On the 9th March, 1916, the " Birkenhead Day Nursery " was opened at 3 Cole Street, and has been a great success, evidently supplying a long felt want.

The Nursery is open daily from 7-30 a.m. to 7 p.m., Saturdays until 1-30 p.m., for any children from one month up to five years

of age, whose mothers have to go out working, or who may be deprived of proper guardianship, for some other reason.

The children are under the supervision of a qualified Matron, and staff of Nurses.

Any mothers who have either casual or regular employment could not do better than leave their little ones at the Nursery during the time they are away from home, as they will be well fed, clean, warm and thoroughly well cared for during the day.

FEES.

One child—per day	...	...	...	4d.
One child—per week	...	...	1s. 8d.	
One child—Saturdays...	...	...	2d.	
Two children of same family...	...	...	7d.	

The Committee considered that the record of work justified them in making a contribution of £50.

THE LIVERPOOL INVALID CHILDREN'S ASSOCIATION

has a Branch at No. 9 Hamilton Square, Birkenhead—the hours of attendance at which are—

Mondays and Fridays	...	10 a.m. to 3 p.m.
Wednesdays	...	10 a.m. to 12-30 p.m.

They work on very friendly terms with the Child Welfare Centre, and give special aid and extra nourishment to deserving and necessitous cases recommended to them from the centre, which is a very great advantage to us in relation to Child Welfare amongst the poorest classes.

Another important institution which has been opened during the year is

“THE BIRKENHEAD RESCUE ASSOCIATION HOME FOR MOTHERS AND BABIES”

at Palm Grove. This is doing very helpful work, and here unmarried mothers are received with some kindness and help. The need for such a Home had long been felt and deserves full support.

THE MIDWIVES ACT, 1902.

In connection with the carrying out of the provisions of this Act, the usual routine was carried out during the year, viz: visiting the homes of midwives, interviewing them in connection with their work and explaining the provisions of the Act and the rules laid down for their guidance by the Central Midwives Board.

During the year 1917, 74 midwives entered their names on the local register as practising in the borough, being 2 more than last year, but names are constantly being added to the roll. Of the above 74, five of them subsequently left the district, and their names have been removed from the register accordingly. 11 midwives gave notice of change of address, and two had their names removed from the Roll at their own request. Two midwives died during the year.

During the year I received 14 complaints against midwives. All of these were carefully investigated, and in 10 cases the midwives in question interviewed by the Medical Officer of Health. 29 complaints were investigated by the Inspector of midwives. The Inspector also interviewed 39 midwives on minor matters where no complaint had been made.

Notices were received from midwives of 66 still births (38 male and 28 female) having occurred; and 342 cases were notified in which medical aid had been called in, as against 373 last year.

The Inspector of midwives paid 245 visits of inspection to midwives, and I also inspected the bags and registers of a small number.

54 cases of unnotified births occurred. 44 of these were attended by medical practitioners, 2 by certified midwives, 2 by the Maternity Hospital Authorities, 4 by the Borough Hospital and 2 by Handy-women.

NOTIFICATION OF BIRTHS ACT, 1907.

This Act was adopted in the Borough on January 3rd, 1912, and three women Health Visitors were appointed in connection with carrying out the work.

No. of births notified during the year	3371
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No. of births attended by medical practitioners	...	728
,, ,, by midwives...	...	2358
,, ,, in Maternity Hospital	...	244
,, ,, in Union Infirmary...	...	37
,, ,, in Borough Hospital	...	4
Total number of stillbirths for the year	...	128
Of these Medical Practitioners notified	...	36
Maternity Hospital	,,	20
Union Infirmary	,,	6
Midwives	,,	66

The following is a record of the cases visited by the women Health Visitors during 1917, viz. :—

2688 first visits were paid to the homes.

7183 re-visits were made.

576 visits were paid in relation to cases of measles.

2192 visits were made to children over 1 year and under 5 years.

1954 infants were found to be breast fed.

91 infants were breast and artificially fed.

336 infants were fed on artificial foods.

58 cases of ophthalmia and 73 cases of slight inflammation of the eyes were carefully watched and recovery resulted in each case.

58 cases of Ophthalmia Neonatorum were notified.

23 cases where death from diarrhoea had occurred were enquired into.

10 special enquiries were made for the Medical Officer of Health.

42 cases of nuisances were reported to the Public Health Department. 5 cases were referred to the Charity Organisation Society, and 23 cases reported to the Society for the Prevention of Cruelty to Children. 35 cases referred to the Invalid Children's Association.

17 cases sent to the Naval and Military Pensions Committee.

3 reported to the Education Department and 2 to the Tuberculosis Medical Officer.

62 cases were visited for the Naval and Military Pensions Committee.

THE TREATMENT OF VENEREAL DISEASES.

SCHEME OF THE TOWN COUNCIL IN RELATION TO THE DIAGNOSIS, TREATMENT, ETC., OF VENEREAL DISEASES, ADOPTED BY THE COUNCIL, JULY, 1917.

1. The Scheme is intended to be based upon and to follow as closely as practicable the lines laid down by the Public Health (Venereal Diseases) Regulations, 1916, and in the Pamphlet upon the subject issued by the Local Government Board. It consists therefore of three branches:—
3. Arrangements for enabling any Medical Practitioner practising in the Borough, including Poor Law Medical Officers, to obtain at the cost of the Council a scientific report on any material which the Practitioner may submit from a patient suspected to be suffering from Venereal Disease.
- B. Facilities for the treatment at and in a General Hospital of persons suffering from these diseases.
- C. Provision for the free supply to registered Medical Practitioners in the Borough of substitutes for salvarsan approved by the Local Government Board.

(A)

SCIENTIFIC REPORTS ON SUSPECTED MATERIAL TO ASSIST DIAGNOSIS AND GUIDE TREATMENT.

2. Arrangements by correspondence have been provisionally made with Professor Beattie, of the University of Liverpool, under which this gentleman will, speaking generally, carry out all the duties assigned to the Pathologist in the Pamphlet of the Local Government Board.
3. These duties involve, among other matters, microscopical examinations at the University Laboratory of discharges, the carrying out of Wasserman tests, and other tests directly concerned with the diagnosis or treatment of Venereal Diseases.

Outfits for the collection of material will be provided by the Council, and will be supplied to Medical Practitioners on application.

4. It will be open for a Medical Practitioner or Medical Officer either himself to collect specimens or to arrange for the collection thereof at the Birkenhead Borough Hospital, or in special cases elsewhere, under the Agreement hereinafter referred to.

Under this Agreement gonorrhœal specimens taken at or sent to the Hospital will be examined microscopically at the Hospital, while blood specimens and smears for the detection or examination of spirochetes will be forwarded from the Hospital for examination to Professor Beattie.

5. General Practitioners and Medical Officers will thus be enabled at the public expense to submit suspected material for the application thereto of the appropriate test, or tests, and will receive a scientific report which will assist in diagnosis and afford guidance in treatment.

6. Professor Beattie will also co-operate with the organisation at the Borough Hospital, hereinafter referred to. He will also be available for consultation in special cases, and will be prepared to collect material from any patients who may be sent to the Laboratory.

7. As regards the remuneration of Professor Beattie, it is not practicable, in the first instance, to suggest an inclusive annual payment, and payment will therefore be made on a "per specimen" basis, viz.:—3/6 for microscopical examinations, and 5/- for Wassermann tests. These rates are to be revised at the end of the first twelve months of working.

8. The technique to be employed by Professor Beattie will be that already agreed upon by him with the Local Government Board.

(B)

FACILITIES FOR TREATMENT AT AND IN A GENERAL HOSPITAL.

9. Negotiations have taken place between the Council and the Committee of the Birkenhead Borough Hospital with the result that an Agreement has been arrived at subject to the approval of the Local Government Board. The form of the Agreement is set forth in the Schedule hereto.

10. In this, as in the other branches of the Scheme, the arrangements are intended to be in complete conformity with the suggestions of the Board, which are based upon the recommendations of the Royal Commission on Venereal Diseases.

11. The following are the principal features of the proposed arrangement with the Hospital Authorities:—

- (a) An organisation will be set up at the Hospital under which facilities will be provided whereby persons may, without expense to themselves, attend at the Hospital; may ascertain whether or not they are affected with Venereal Disease, and may receive out-patient and, where necessary, in-patient treatment.
- (b) In accordance with one of the most emphasised recommendations of the Local Government Board, these facilities will be available for *all comers, irrespective of their place of residence or means*. With reference, however, to the last part of this statement, a reservation is made in accordance with a suggestion of the Local Government Board, which reservation is set out in the Schedule to the proposed Agreement with the Hospital.
- (c) Two beds are reserved at the Hospital, and additional accommodation will be provided if practicable. The beds will be used—
 - (i) For the treatment of patients suffering from syphilis by approved substitutes for salvarsan.

- (2) For the temporary treatment of acutely contagious cases, both of syphilis and gonorrhœa.
- (3) For surgical treatment urgently needed.
- (d) As regards the facilities for out-patients, Clinics will be held at the Hospital on one evening a week and also on two afternoons weekly for females.
- (e) A Special Medical Officer will be appointed by the Hospital Committee in connection with the organisation to be set up at the Hospital. He will attend the beds and the Clinics, and be in charge of the treatment of both the in-patients and the out-patients. He will also perform a considerable number of other functions (including the microscopical examination of gonorrhœal specimens), the particulars of which are set out substantially in the Agreement.
- (f) The Hospital Committee propose to appoint Dr. W. R. Dalzell as such special Medical Officer. He is already one of the Honorary Medical Officers of the Hospital, and has special qualifications and experience for the position, particulars of which have been submitted to the Board.
- (g) The remuneration of the special Medical Officer for the first year has been provisionally arranged at £200, which is considered to be reasonable in the circumstances.
- (h) The proposed appointment of Dr. Dalzell specially commends itself to the Health Committee having regard to the fact that Dr. Dalzell, being already engaged as the Gynœcological expert of the Corporation at the Maternity and Child Welfare Centre, there is every prospect of valuable co-operation being obtained between that Centre and the institutional facilities proposed to be provided at the Borough Hospital under the present Scheme. The additional fact that the Corporation have an arrangement with the Hospital Committee for the reservation of other beds in connection with the Maternity and Child

Welfare Scheme, appears to increase the probabilities of such co-operation. The remuneration of the special Medical Officer will be refunded to the Hospital Committee by the Corporation, but all approved payments by the Corporation in connection with the Scheme will be re-imbursed to the Corporation, to the extent of 75 per cent., from Imperial sources.

- (i) In addition to the foregoing payment, a sum of £200 is proposed to be paid to the Hospital Committee for the first twelve months' working in respect of the reservation and use of beds, rent, services of female nurse, clerical work, postage, heating, lighting, laundry, cleaning, etc. The Corporation will also pay for all necessary record books, stationery, instruments, dressings and drugs, and will be under an obligation to supply the necessary quantities of substitutes for salvarsan. A sum of 5/- per night will also be paid by the Corporation for each person admitted for intravenous injections on occasions when the reserved beds are in use and it is important that the injection should be made.
- (j) All information obtained as to the identity, etc., of patients is to be regarded as confidential, and neither the Clinics nor the beds are to be specially designated as for the treatment of Venereal Diseases.
- (k) With the view to the instruction of and the acquisition of experience by general Medical Practitioners in reference to modern methods of diagnosis and treatment of Venereal Diseases, one of the conditions laid down in the Agreement is that these practitioners, and also medical students, are, subject to any Regulations which the Hospital Committee may think necessary, to have access to, and to be encouraged to attend, the working of the arrangements at the Hospital.
- (l) The Agreement is to be in force for twelve months, upon the expiration of which it will be subject to

revision at the instance of the Hospital Committee or the Corporation in the light of the experience gained in the actual working of the Scheme.

(m) Notwithstanding the fundamental condition laid down that all comers are to be treated, irrespective of the Local Government area in which they are ordinarily resident, it is understood that, if as a result of the first twelve months' working it is found that many Birkenhead patients go (say) to Liverpool, or *vice versa*, the fact will be reported to the Local Government Board, and a modification of the Scheme may be necessitated, under which the administrative area whose patients go to another area for treatment will be required to contribute towards the cost of the facilities utilised in the latter area.

(C)

PROVISION FOR THE FREE SUPPLY BY THE CORPORATION TO REGISTERED MEDICAL PRACTITIONERS IN THE BOROUGH OF SUBSTITUTES FOR SALVARSAN.

12. It is contemplated that as the general body of Medical Practitioners in the Borough become more fully conversant with the modern methods of diagnosis and treatment, either as the result of witnessing or co-operating in the practice at the Hospital, or other experience, which they may not at present possess, they will themselves be desirous of diagnosing and treating these diseases in normal cases.

13. Under these circumstances, the third Branch of the Scheme is as above stated. The Corporation will arrange to obtain supplies of those substitutes for salvarsan which are approved from time to time by the Board, and to supply them to those Registered Practitioners who are able to satisfy the Medical Officer of Health that they possess one or other of certain qualifications which the Local Government Board have laid down in their circular letter dated the 29th August, 1916.

14. These alternative qualifications are as follows:—

- (1) That the applicant holds a certificate of having satisfactorily fulfilled the duties of clinical assistant in a Hospital Department recognised by the Local Government Board in connection with a Local Authority's Scheme for the diagnosis and treatment of Venereal Diseases in their communicable stages; or
- (2) That he holds a certificate of satisfactory attendance at a course of instruction in the diagnosis and treatment of Venereal Diseases (including intravenous medication) in such a Hospital Department or in a recognised Medical School or Post-Graduate College; or
- (3) That he is, or has been, within the last five years, a Member of the permanent staff of a Hospital managed by a Committee and containing not less than 50 beds; or
- (4) That he produces satisfactory evidence, other than that indicated in the foregoing paragraphs that he has had adequate experience in the administration of these drugs by intravenous injection.

15. In connection with this branch of the Scheme, the point emphasised by the Local Government Board, that the co-operation of general Medical Practitioners is essential to the success of the Scheme, is fully recognised. It is intended by the Council that all practicable steps should be taken to attain this object, by providing for the practice at the Hospital being fully open to practitioners, by encouragement being given them to attend (subject to the conditions of secrecy which are laid down), by the supply of outfits for the taking of specimens, by fully acquainting them with the nature of the facilities provided for arriving at the accurate diagnosis of cases and for guidance in treatment, by arranging for consultations and assistance in treatment, and for special demonstrations illustrative of modern methods, as suggested by the Board, and generally by the adoption of all practicable measures calculated to obtain the fullest interest and co-operation of the Practitioners in the working of the Scheme.

2. A Medical Officer appointed by the Committee and approved by the Corporation and the Board (hereinafter called "the Medical Officer") shall be appointed as Medical Officer in connection with the facilities to be provided by the Committee under this Agreement and the Medical Officer shall co-operate so far as reasonably necessary and practicable with Professor Beattie of the University of Liverpool or other Bacteriologist engaged by the Corporation with the approval of the Local Government Board from time to time in connection with the Scheme of the Corporation regarding the diagnosis etc., of Venereal Diseases (hereinafter called "the said Scheme")

3. The Medical Officer shall treat the in-patients received from time to time into the Hospital under this Agreement and shall also attend the out patients department of the Hospital one evening in each week at such fixed hour between six and eight o'clock as may be found desirable by the Committee and remain until all patients for treatment have received attention. Such evening Clinic shall not be specially designated for males or females. The Medical Officer shall also attend the said Department on two afternoons in each week at such hour or hours between two and four o'clock as may be found desirable by the Committee and remain until all patients for treatment have received attention. Such afternoon Clinics shall be for females only but the Medical Officer may arrange for the attendance for surgical or other special purposes of any male patient or patients at an afternoon Clinic if he thinks fit. None of the said Clinics whether for males and/or females shall be specially designated as for Venereal Diseases and the Committee shall take all reasonable steps to provide that nothing is done whereby persons attending such Clinics are distinguished from other patients. A female Nurse shall assist the Medical Officer at Clinics whenever female patients are in attendance. The Medical Officer shall use all reasonable endeavours to secure where necessary continued attendance by patients at the Clinic. After the first attendance arrangements shall be made whereby the patients shall as far as possible attend by appointment. In the event of the Medical Officer being from time to time unable to attend the Clinics

16. IMPERIAL CONTRIBUTION.

The Local Government Board will repay 75 per cent. of the cost of the Scheme, if approved, at the close of the financial year.

SCHEDULE.

MEMORANDUM OF AGREEMENT made this
 day of 191 BETWEEN
 WILLIAM ARTHUR WEIGHTMAN of 43 Bidston
 Road Birkenhead in the County of Chester, Solicitor
 and EDWARD SINGLETON of Birkenhead aforesaid Gentleman, on behalf of the Committee of the Birkenhead Borough Hospital (hereinafter called "the Committee") of the one part and THE MAYOR, ALDERMEN, AND BURGESSES OF THE BOROUGH OF BIRKENHEAD aforesaid (hereinafter called "the Corporation") of the other part WHEREAS the Corporation have approved a Scheme for the diagnosis and treatment of Venereal Diseases AND WHEREAS the Scheme has been approved by the Local Government Board AND WHEREAS the Committee are willing to provide for the diagnosis and treatment of Venereal Diseases as hereinafter appearing NOW IT IS HEREBY AGREED by and between the Committee and the Corporation as follows:—

1. The Committee shall admit for treatment and treat to the satisfaction of the Corporation and the Local Government Board in their Institution known as the Birkenhead Borough Hospital in Park Road North Birkenhead and as out-patients at a Clinic or Clinics in such Institution persons suffering from Venereal Disease and such persons shall receive treatment irrespective of their place of residence or means subject to the proviso contained in the first two paragraphs on page 10 of the Local Government Board's circular letter to Local Authorities dated 13th July 1916 such paragraphs being set out in the Schedule hereto.

in accordance with the foregoing provisions he shall (except in an emergency) submit to the Town Clerk of the Corporation for his approval his proposed arrangements for the provision of a suitably qualified assistant or deputy and all such arrangements shall (except as aforesaid) be subject to such approval being first received PROVIDED ALWAYS that the Medical Officer shall be entitled to one month's holiday during the period of this Agreement but he shall during such month provide at his own expense a substitute approved by the Corporation who shall duly perform the duties of the Medical Officer under this Agreement.

4. The Committee shall also cause provision to be made at the Hospital for the microscopical examination of specimens from gonorrhœal cases obtained at the Venereal Diseases Clinic or sent to the Hospital by Registered Medical Practitioners practising in the Borough of Birkenhead. They shall also make arrangements for blood specimens to be taken at the Clinic for Wassermann reactions or for smears for the detection or examination of spirochetes to be prepared from patients who have been sent by private practitioners. Such blood specimens and smears shall be forwarded to Professor Beattie at the University of Liverpool. The Medical Officer shall send promptly to the Medical Practitioner concerned a report on the examination of each specimen submitted.

5. The Medical Officer shall furnish to private practitioners a report with reference to each patient sent by them for consultation.

6. The Committee shall arrange for the Medical Officer from time to time as may be reasonably required by the Corporation with a view to the further instruction of general medical practitioners and students to give demonstrations to such practitioners and students of the method of taking and transmitting material for laboratory diagnosis and of the best modern methods for the systematic treatment of Venereal Diseases.

7. The Medical Officer shall at all reasonable and convenient times consult at the Hospital with any other Medical Practitioner in regard to diagnosis or treatment of a

patient or patients of such practitioner suffering or suspected to be suffering from Venereal Disease. He shall also but only in special cases where such course appears to him to be necessary attend at other Hospitals, at a Maternity and Child Welfare Centre, at Poor Law Institutions and/or at private residences in the Borough of Birkenhead to consult with and assist any other Medical Practitioner in the diagnosis or treatment of Venereal Diseases.

8. The sum of £200 shall be paid by the Corporation to the Committee in respect of the duties performed by the Medical Officer for a period of twelve months from the date hereinafter referred to the payments to be made quarterly in arrear and the Corporation shall at their own expense supply to the Committee when required salvarsan substitutes approved by the Local Government Board and such record books forms of return and stationery as shall be required by the Committee or the Medical Officer for carrying out their respective duties under this Agreement.

9. The Corporation shall also reimburse to the Committee the cost of instruments drugs and dressings necessarily obtained and paid for by the Committee in connection with the performance of their obligations under this Agreement.

10. The Corporation shall in addition to the payment mentioned in Clauses 8 and 9 pay to the Committee the sum of £200 in consideration of the latter reserving exclusively for a period of twelve months from the date hereinafter referred to two beds in the said Hospital for persons suffering from Venereal Diseases and the Corporation shall also pay the sum of 5/- per night for each and any person admitted as an in-patient for intravenous injection on occasions when the two reserved beds are occupied and continuity of treatment would be impaired if the patient were not admitted for the period of time during which it may be necessary for the patient to remain in the Hospital in connection with such injection. The reserved beds shall as far as practicable be available for male and female cases according to requirements from time to time but only two beds in the aggregate shall be so exclusively reserved at any

one time The said beds shall be provided and reserved under conditions which so far as practicable do not involve the identification by other patients of the patients occupying such beds as suffering from Venereal Diseases

11. All accounts shall be rendered to the Corporation by the Committee quarterly in arrear and must state the following particulars of cases admitted into the Hospital namely:—

Number.	Age.	Sex.	Disease.	Date of admission.	Date of discharge.	Administrative area in which patient resides.	If not admitted to a reserved bed ordinarily state that fact.
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12. Patients shall only be admitted to the reserved beds on the express recommendation of the Medical Officer.

13. In the event of the Committee receiving at any time from the Councils of Counties or County Boroughs which have not entered into agreements with the Committee for the use of the Treatment Centre, or from any other source any sum in respect of the work carried out at the Treatment Centre during any period within the currency of this Agreement the Committee shall repay to the Corporation such proportion of this sum as the share of the Corporation of the actual cost of the work carried out at the Treatment Centre during the period in question bears to the total actual cost of the work carried out at the Treatment Centre during that period

14. In the event of any persons admitted to the Hospital by reason of injuries caused by accident or for any other reason (not being the existence of Venereal Disease in such person) being on admission or subsequently found to have Venereal Disease such person shall be regarded as occupying a reserved bed only during the time of his or her remaining in Hospital solely for the treatment of Venereal Disease

15. The Committee shall keep all records which may from time to time be required by the Local Government Board and shall furnish to the Board and to the Corporation such returns as may be so required and in any case shall furnish such quarterly returns to the Medical Officer of Health as he may reasonably require to enable him to advise the Corporation of the progress and working of the said Scheme

16. The Committee undertake that ~~reports~~ on the previous treatment of patients (at the Hospital) shall be furnished to the private practitioner ~~entities~~ thereto on his making application therefor and supplying ~~the written~~ consent of the patient concerned

17. All information as to individuals ~~whether~~ as to identity or otherwise) obtained incidentally to their attendance or treatment at the Hospital for Venereal Disease shall be regarded as confidential and the Committee shall take all reasonable precautions for the carrying out of this principle in connection with the performance of the obligations under this Agreement

18. Nothing herein contained shall ~~be deemed~~ to give to the Corporation any right of interference with the management or affairs or discipline of the Hospital PROVIDED ALWAYS that the Committee will at all reasonable times permit not more than three representatives of the Corporation nominated for the purpose by the Health Committee to inspect from time to time the arrangements made at the Hospital under this Agreement and the working thereof

19. Subject to such Regulations as ~~the Committee~~ may think necessary and desirable Medical Practitioners and Registered Medical Students of two years standing shall have access to and be encouraged to attend the practice at the Hospital in connection with the diagnosis and treatment of Venereal Diseases

20. Any Medical Inspector of the Local Government Board shall be at liberty at any time to inspect the arrangements at the Hospital under this Agreement.

21. The Scheme shall be put in ~~operation~~ immediately after the sanction of the Local Government Board has been received and payment shall date from the day upon which the first Clinic shall be held with the approval of the Corporation

22. This Agreement shall remain in ~~operation~~ for a period of twelve months from the said date of holding the first Clinic

23. If any question dispute or difference shall arise between the Parties hereto in respect of any subject matter of this Agreement or of the interpretation of this Agreement or in respect of any payment to be made or of anything done or to be done hereunder or of any other matter arising out of the provisions of this Agreement such question dispute or difference shall on application of any of the parties hereto be referred to the Local Government Board for determination by them as arbitrators or otherwise or at the option of the Board by an arbitrator appointed by them. IN WITNESS whereof the said William Arthur Weightman and Edward Singleton have hereunto set their hands and seals and the Corporation have caused their Corporate Common Seal to be hereunto affixed the day and year first before written

SIGNED SEALED etc.

THE SCHEDULE REFERRED TO

The Commission point out in paragraph 149 of their Final Report that some persons may present themselves for treatment at an Institution who in the opinion of the Medical Officer in charge can be satisfactorily treated by their own Doctor and who can afford to pay for their own treatment. The Commission consider that in such a case the Medical Officer might properly suggest to the patient that he should consult a private practitioner but if the patient prefers not to adopt this course there should be no refusal to treat him at the Institution.

Every effort should however be made to secure the full co-operation of private practitioners in the treatment of cases. The Board consider that every patient whether or not he is an insured person under the provisions of the National Insurance Acts who attends at an approved Institution for treatment may properly be asked whether he has a doctor of his own and whether he is willing to be treated by that Doctor. If the patient has no Doctor or being an insured person has not yet chosen a panel Doctor but is willing to be referred to a private practitioner for treatment in association with the treatment provided at the Institution he should be advised to choose a Doctor who would co-operate in his treatment.

THE TREATMENT CENTRE was opened on September 1st, 1917.

In connection with the carrying out of the Scheme, the following return shows the services rendered at the Treatment Centre (September 1st to December 31st):—

No. of attendances at the Outpatient Clinic	...	158
Aggregate No. of Inpatient Days	...	165
No. of Doses of Salvarsan Substitutes used in Treatment Centre	...	75

Propaganda work was also carried out by the Medical Officer of Health, by the distribution of literature and the giving of public lectures to selected audiences by Dr. Dalzell and myself, and also by lectures on behalf of the Liverpool Medical Institution Branch of the N.C.C.V.D., with which Birkenhead is affiliated, as follows:

SERIES OF FIVE LECTURES

on "Sex Instruction and Eugenic Education," in the Lecture Hall of the Free Library, Birkenhead, by Miss Nora March, M.Sc., of the Day Training College, London.

- Monday, April 23—"Physical and Emotional Development of Children in regard to Sex."
- ,, ,,, 30—"Care and Training of Children, of growing Boys and Girls."
- ,, May 7—"Social Safeguarding."
- ,, ,,, 14—"Instruction in the facts of Sex and Parenthood."
- ,, ,,, 21—"Eugenic Education for Parenthood."

Lectures were also arranged at Liverpool, where people from Birkenhead thought to be specially interested in the work were invited to attend.

At the request of the Birkenhead Women's Local Government Association,

A COURSE OF 4 LECTURES

for Women were held at Birkenhead, on Thursdays, February 8th and 15th, and Wednesdays, February 21st and 28th,

This Course of Lectures was specially arranged for social workers, teachers, nurses and all women interested in the problem.

The Bacteriologist examined 42 specimens from the Treatment Centre for Wasserman reaction.

And by the end of the year it may be said that the Scheme was fairly well established and good work being done.

**DETAILED STATEMENT OF
THE WORK OF THE PUBLIC HEALTH DEPARTMENT
DURING 1917.**

Ordinary Sanitary Operations.—The ordinary sanitary operations of the Department have continued to receive unremitting attention. House-to-house inspections of the cottage property in the Borough have been regularly made. Public fountains, &c., have been scoured and kept in order, and the systematic removal of ashpit and house refuse at stated intervals is now carried out by the Borough Surveyor's Department.

Summary of Nuisances, &c.—The summary of nuisances investigated and dealt with during 1917 is as follows:—

	1917.
Number of nuisances reported	6262
Number of formal notices given	2646
Number abated after formal notice and without proceedings	2646
Number of cases in which proceedings had to be taken for ordinary nuisances	nil
Number abated after proceedings...	nil
House disinfecting notices...	336
Nuisances at houses let in lodgings	279
Nuisances at common lodging houses	69
Notices for cleansing of filthy houses	8

A brief statement of the other measures taken in 1917 for correcting or getting rid of whatever appeared to be prejudicial to health is subjoined.

Sanitary defects reported by the Inspectors and referred for the action of the Borough Surveyor 486

Matters reported to Water Engineer	...	...	345
Matters reported to Borough Treasurer	...	...	68
Houses or parts of houses specially disinfected by formalin or other disinfectants	...	...	764
Notice to whitewash and efficiently cleanse milk-houses, cowsheds and dairies, given and complied with	...	...	374
Offensive privies abolished	...	...	nil
Parcels of infected bedding and clothes disinfected at the Disinfecting Station	...	...	760
Parcels of infected or discarded bedding and clothes destroyed	...	...	494
Carcases of dogs and cats &c. removed from pools or waste land and buried	...	...	77
Total	...	...	<u>3368</u>

In addition to the above, the following work has been done:—

Number of excavations made for the purpose of testing the condition of house drains	42
Number of smoke tests applied to drains of premises reconstructed under the supervision of this Department	69
Number of water tests applied to drains	60
Number of smoke tests applied to the drains of new buildings, in conjunction with the Borough Surveyor's Department	4

District Inspections.—The following is a statement of the work done by the District Inspectors of Nuisances and the Disinfecting Inspector during 1917.

					Number of Visits and Revisits made to Insanitary Property.
District I.—Inspector Croshaw (on active service)...					3925
„ II — „	Lee	...	...	...	5210
„ III.— „	H. T. Taylor		...	...	4200
„ IV.— „	W. H. Tilston		...	...	5010

Disinfecting Inspector Isaac Taylor	... 5310
Total ...	<u>23655</u>

District 1 visits made by Inspectors of 2, 3 and 4 Districts.

Smoke Nuisances.—Observations were taken of the smoke emitted from the factory and other chimneys of the Borough during the year 1917. Proceedings were instituted in respect of a smoke nuisance from a Laundry Chimney and a penalty of 20/- was inflicted.

Inspection of School Premises.

Working in conjunction with the Education Department, I had 33 schools specially examined by the District Inspectors and reported thereon to the Education Committee.

Inspection of Common Lodging Houses and Houses let in Lodgings.

The following is a statement of the work performed during the year 1917 by the Inspector of Common Lodging Houses and Houses let in Lodgings, viz:—

REGISTERED COMMON LODGING HOUSES.

Day Inspections	...	...	...	...	...	4668
Night Inspections	..	...	...	...	...	419

The total number of registered lodging houses is 20.

REGISTERED HOUSES LET IN LODGINGS.

Day Inspections	...	...	..	...	...	3984
Night Inspections	...	...	..	...	...	20

The total number of houses let in lodgings on the register at the end of 1917 was 656.

Corporation Tenement Dwellings.—Weekly visits were made during the year by the Inspector of Lodging Houses, &c., and 159 nuisances were reported, which have been abated.

Factory and Workshop Acts, 1901 and 1907.

In connection with the carrying out of the provisions of these Acts, the following is a statement of the work done by the Inspector during the half-year, (up to 30th June), viz.:—

620 visits have been made to workshops.

152 visits have been made to bakehouses.

25 visits have been made to workplaces.

63 visits have been made to homeworkers' premises.

7 workshops, including 2 bakehouses, have been placed on the register during the half-year, making a total of 480 up to the 30th June, 1917, of which 59 are bakehouses and 48 are confectioners' shops.

2 workshops have been closed.

5 workshops were transferred to more suitable premises.

24 nuisances in connection with workshops have been reported and abated.

12 notices to cleanse and limewash the workshops have been served and complied with.

468 occupiers of workshops have limewashed their premises under inspection, but without waiting for the formal notice.

No case of overcrowding has been reported during the half year.

No failures to affix abstract of the Factory and Workshops Act (s. 133), have been reported.

Lists of out-workers have been carefully kept, and notices in the form prescribed by the Secretary of State, as given in my Report for 1892 (pp. 57 and 58), have been served when necessary.

Laundries.—110 visits were made during the half-year to the 52 laundries at present on the register.

Bakehouses.—The duties involved in carrying out the provisions of the Acts relating to the sanitary condition of bakehouses have been put under a special Inspector, and during the half-year 152 visits have been made to bakehouses.

There has been a very great improvement secured by this systematic inspection.

INFECTIOUS DISEASES (PREVENTION) ACT, 1890.

140 Public Library and 17 School Library books were collected from infected houses and disinfected, and two books were destroyed.

CLEANSING OF PERSONS ACT, 1897.

4 soldiers were cleansed under the provisions of this Act, at the special bath provided for this purpose at the Disinfecting Station in Corporation Road, and their clothing disinfected.

SHOPS ACTS, 1912 and 1913.

(Which repeal the Shops Regulations Acts, 1892—1911.)

The total number of visits paid to the various shops under the provisions of the above Acts and orders made thereunder during the year was 8045.

The particulars respecting the various proceedings and prosecutions taken under these Acts and Orders during the year are as follows, viz:—

62 infringements were reported and 32 letters of warning sent in connection therewith, prosecutions being taken in 3 cases, with the following results:—

For failing to close the shops for the sale of certain articles on Weekly Half-holiday.

		Fine.	Including
Ditto	Ditto	20/-	Costs.
Ditto	Ditto	20/-	"

For employing assistants on their Weekly Half-holiday, 6/- in each of two cases.

The following Order has been made under the provisions of the Shops Act, 1912, and came into operation during the year, viz:—

The Birkenhead (Pawnbrokers, Ironmongers and Jewellers) Closing Order, 1917.

In addition to the above Order, an Order was made on the 24th day of October, 1916, by the Secretary of State under Regulation 10.B. of the Defence of the Realm (Consolidation) Regulations, 1914, for the early Closing of Shops during the Winter months.

The Order came into operation on the 30th day of October, 1916, and expired on the 30th day of April, 1917, but was subsequently extended and is in force at the present time.

Administration of the Factory and Workshop Acts, 1901 & 1907,

IN CONNECTION WITH

**Factories, Workshops, Laundries, Workplaces and
Homework.**

1. INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories (including Factory Laundries) ..	Nil	—	—
Workshops (including Workshop Laundries) ..	882	12	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report) ..	25	—	—
Total ..	907	12	—

2. DEFECTS FOUND.

Particulars. (1)	Number of Defects			Number of Prosecu- tions. (6)
	Found [2]	Remed'd [3]	Referred to H.M. Inspect'r [4]	
Nuisances under the Public Health Acts :—				
Want of cleanliness	—	—	—	—
Want of ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other Nuisances	6	6	—	—
Sanitary accommodation	insufficient	—	—	—
	unsuitable or defective	—	—	—
	not separate for sexes	—	—	—
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (s. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	18	18	—	—
Other Offences (excluding offences relating to outwork which are included in Part 3 of this Report)	—	—	—	—
Total	24	24	—	—

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Acts as remediable under the Public Health Acts.

3. HOME WORK.

OUTWORKERS' LISTS, SECTION 107.

NATURE OF WORK.*	OUTWORK IN UNHOLDING SOME PREMISES, SECTION 108.						OUTWORK IN UNHOLDING PREMISES, SECTIONS 109, 110.								
	Lists received from Employers.						Prosecutions.								
	Sending twice in the year.		Sending once in the year.		Not serving lists.		Failing to keep or permit inspection of lists.		Failing to send lists.		Prosecutions.				
	Lists. [†]	Outworkers & Contractors	Outworkers & Workmen.	Lists. [†]	Outworkers & Contractors	Workmen.	Lists. [†]	Outworkers & Contractors	Workmen.	Lists. [†]	Outworkers & Contractors	Workmen.			
(1)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Wearing Apparel—															
(1) making, etc.	20	11	70	—	—	—	—	—	—	—	—	—	—	—	
[2] cleaning & washing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Furniture & upholstery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total.	20	11	70	—	—	—	—	—	—	—	—	—	—	—	

INSTRUCTIONS.—If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class only, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) to their respective classes. A footnote should be added to show that this has been done.

* The figures required in columns 2, 3 and 4 are the total number of the lists received from those employers who comply strictly with the statutory duty of sending two lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be even numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

4. REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.	Class.		Number.
		1	2	
Takehouses	59
Confectioners	48
Laundries	52
Other Workshops..	321
Total number of workshops on Register ..	480			

Important classes of workshops, such as	merely as	workshops, such as	houses may be enu-	
Takehouses	Confectioners	Laundries	Workshops on Register ..	
Confectioners	Laundries	Other Workshops..	merely as	
Laundries	Other Workshops..	Total number of workshops on Register ..	workshops, such as	
Other Workshops..	Total number of workshops on Register ..		houses may be enu-	

5. OTHER MATTERS.

Number.	Class.	1.
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SPECIAL WORK DONE IN CONSEQUENCE OF THE WAR.

A good deal of extra work has had to be done by the Health Department in connection with the outbreak of the War and the opening of a number of Schools, Dwelling-houses and other buildings for Military purposes, all of which have had to be examined and reported upon as to their sanitary arrangements and conditions, and where necessary put into proper order.

The premises have also been frequently and regularly inspected.

Special arrangements have been made for the frequent removal of the domestic refuse.

The following is a summary of the work done in this connection by the Department, viz:—

The number of premises occupied by and in connection with the troops and carefully inspected by us is ...	15
i.e., Hospitals	... ... 7
Barracks and Billets...	3
Nurses Hostels	... 5

The number of visits paid by the District Sanitary Inspectors to the above premises was 853, and a number of visits of inspection have also been made by the Chief Inspector of Nuisances and myself.

The total number of articles of bedding, clothing, etc., disinfected for the Military Authorities during 1917 was 13,633. A large proportion of these being in a verminous condition.

There were also 4 soldiers cleansed for vermin at the Disinfecting Station.

In the succeeding pages of this report will be found details of the work carried on by the Public Health Department, together with the vital and mortal statistics of the Borough during the year under consideration, as follows:—

Samples taken formally...293. Informally...12.

Total number of Samples analysed during the year...305

Out of the above, 20 samples of Milk, 4 of Butter, 2 of Self-raising Flour, 1 of Ammoniated Tincture of Quinine, 1 of Sweets, 1 of Pepper, 1 of Vinegar, and 1 of Condensed Milk were reported adulterated, and proceedings were taken in respect of 16 samples of Milk, 1 of Self-raising Flour, 1 of Baking Powder, 1 of Ammoniated Tincture of Quinine, 1 of Vinegar and 1 of Condensed Milk.

With reference to the remaining samples reported adulterated the Health Committee, after consideration and hearing the Vendors' explanation, decided it was inadvisable to institute proceedings, and the Vendors were subsequently cautioned.

Informal Samples.

All the samples taken informally for analysis during the year were found pure, with two exceptions, viz:—Butter Sample No. 20 and Self-Raising Flour No. 29.

The particulars respecting the samples in which proceedings were taken are as follows:—

Quarter Ending	Article.	No.	Amount of Adulteration.	Fine Inflicted.	Costs Imposed.
March 31	Milk ..	5	Dirt, 25 grains per gal	£ 16 0	£ s. d. including costs
	Milk ..	25	18 % added water ..	1 0 0	including costs
	Milk ..	30	6 % added water ..	2 0 0	including costs
	Milk ..	34	5 % added water ..	3 0 0	including costs
	Milk ..	35	2 % added water ..	3 0 0	including costs
	Milk ..	36	2 % added water ..	3 0 0	including costs
	Milk ..	37	20 % added water ..	3 0 0	including costs
	Self-raising flour ..	79	Sulphate of Lime 0.40 % ..	3 0 0	including costs
June 30	Milk ..	97	16 % added water ..	2 10 0	including costs
	Milk ..	98	5 % added water ..	2 10 0	including costs
	Baking-Powder ..	100	Sulphate of Lime 10.25 % ..	2 0 0	including costs
	Ammoniated Tinc. of Quinine ..	110	Deficient in Quinine Sulphate to the extent of 18 % ..	3 0 0	including costs
	Milk ..	113	3 % added water ..	1 0 0	including costs
	Milk ..	125	Deficient in fat to the extent of 8 % ..	1 0 0	including costs
	Milk ..	126	Deficient in fat to the extent of 11 % ..	1 0 0	including costs
	Milk ..	128	6 % added water ..	1 0 0	including costs
	Milk ..	139	4½ % added water ..	Withdrawn	
September 30	Milk ..	185	12 % added water ..	1 0 0	including costs
December 31	Vinegar ..	282	Deficient in Acetic Acid 15 % ..	1 0 0	including costs
	Milk ..	284	4 % added water ..	2 0 0	including costs
	Condensed Milk ..	291	Not Condensed Milk ..	Dismissed	

PARTICULARS AS TO ANIMALS SLAUGHTERED IN BIRKENHEAD.

The following is a return of the number of animals slaughtered in Birkenhead during 1917:—

At Woodside Lairage, Wallasey Stage and No. 4 Shed, Wallasey. The total number of animals dealt with here, viz: 126,926 oxen and 2070 sheep, was much less than in previous years, as regards the number of oxen, but a considerable increase in the number of sheep.

The total number of animals killed was as follows, viz:

AT WOODSIDE LAIRAGE.

	Oxen	Sheep
Irish 	126554	...

AT WALLASEY LANDING STAGE AND NO. 4 SHED, WALLASEY LAIRAGE.

	Oxen	Sheep
Irish 	372	2070

AT THE BIRKENHEAD ABATTOIR, NEW CHESTER ROAD.

Oxen, 1612; Sheep, 3737; Lambs, 5837; Calves, 391; Pigs, 3905; the total number of animals killed being 15,482.

During the months of September, October, November and December, 1917, the War Office decided to have a number of cattle landed at Birkenhead and slaughtered for use in the Army, under their own supervision, a special inspector being sent down for this purpose.

The Local Government Board requested the Town Council to give all facilities in their power in connection with this work, and asked that the Medical Officer of Health should supervise the work of Inspection done by the Army Inspector. Under this arrangement some

4343 Oxen were slaughtered at Woodside Lairage
48 " " Wallasey Stage
35 " " Wallasey Lairage and
the carcases subsequently brought to Woodside.

PROCEEDINGS TAKEN UNDER THE "SALE OF FOOD AND
DRUGS ACTS, 1875 to 1907."

The Chief Inspector (Mr. William Dawson) gives the following summary of proceedings taken under these Acts during 1917.

During the twelve months ending the 31st December, 1917, the following samples were taken and analysed, viz.:—

Article	Number Samples taken formally	Number Samples taken informally	Article	Number Sample taken formally	Number Samples taken informally
Milk	130	3	Castor Oil	3	—
Butter	25	7	Honey	3	—
Self-raising Flour	20	1	Ammoniated Tinc-	—	—
Sweets	12	—	ture of Quinine	2	—
Coffee	10	—	Egg Powder	2	—
Jam	10	—	Oatmeal	2	—
Lard	9	—	Rum	2	—
Cocoa	8	—	Whisky	2	—
Ground Rice	8	—	Brandy	1	—
Cheese	6	—	Blanc Mange P'dr	1	—
Tea	6	—	Cream Cheese	1	—
Baking Powder	5	—	Epsom Salts	1	—
Condensed Milk	5	—	Custard Powder	1	—
Vinegar	5	—	Gin	1	—
Margarine	4	—	Sugar	—	—
Pepper	4	—	Syrup	1	—
Camphorated Oil	3	—			—

Milk Sample No. 139.

When this case came before the Court, the Magistrates, after hearing the evidence and considering the matter, suggested that as the defendant was away "on service" the summons should be withdrawn.

Condensed Milk, No. 291.

In this case a "tin of Condensed Milk" was asked for and purchased at a small Grocer's Shop, the price paid being one shilling and two pence.

The tin was labelled "——— Brand Choice Sterilized Milk" and contained about 15 fluid ounces.

The Public Analyst reported as follows, viz:—

Milk Fat	...	...	...	3·22
Non-fatty Solids	...	...	...	7·81
Mineral Salts	...	...	...	·75
Water	...	...	...	88·22
				—
				100·00
				—

"This is not Condensed Milk. The above composition is that of ordinary New Milk."

When the case came before the Court, the Magistrates after hearing the evidence disagreed and dismissed the summons.

The particulars of the case were subsequently forwarded to the Local Government Board and to the Ministry of Food for their information.

Composition of Milk Samples.

The following Schedule shews the composition of each sample of milk analysed during the year ending, 31st December, 1917.

Date of Sample	Identif' Number given in Quart'ly Report	Percentage of Fat	Percentage of Solids not Fat	Date of Sample	Identif' Number given in Quart'ly Report	Percentage of Fat	Percentage of Solids not Fat
Jan. 9	1	3.38	8.81	Mar. 13	70	2.94	8.63
	2	3.23	8.98		71	3.18	9.02
	3	4.07	8.99		72	3.88	8.88
	4	3.38	8.94		73	3.21	8.94
	5	3.41	9.04		74	3.14	8.60
	6	4.04	8.54		87	3.72	9.02
	23	4.88	8.51		88	4.16	9.26
	24	3.13	6.97		89	3.47	8.57
	25	4.42	8.85		90	4.42	8.58
	26	4.50	8.84		91	3.57	8.78
Feb. 3	27	4.32	8.87	Apr. 1	92	3.02	8.64
	28	6.59	8.79		93	3.95	8.77
	30	3.40	7.99		94	3.06	8.87
	7	3.26	8.07		11	3.32	8.82
	35	4.05	8.30		96	3.23	8.61
	36	3.66	8.33		97	3.10	7.14
	10	3.7	8.00		98	3.33	8.07
	13	3.8	4.37		111	6.12	8.48
	20	4.5	4.21		112	3.91	8.43
	46	3.13	8.67		113	2.85	8.25
Feb. 27	47	3.14	8.80	May 1	114	4.63	8.83
	48	3.57	9.23		115	3.26	8.91
	49	4.07	8.54		116	3.72	8.24
	50	3.60	9.03		5	117	3.88
	57	8.84	8.60		118	3.46	8.82
	58	2.91	8.74		14	2.76	8.54
	59	3.22	8.69		125	2.67	8.95
	60	4.04	8.50		126	3.49	9.07
	61	3.34	8.69		127	3.52	7.99
	62	3.60	8.74		128	3.00	8.96
Mar. 6	63	3.21	8.85	16	130	5.83	8.51
	64	3.61	8.64		131	3.68	8.76
	65	5.32	9.19		132	3.89	8.70
	66	3.96	8.73		133	3.52	8.95
	67	4.10	8.98		134	3.85	9.10
	68	3.72	8.51		135	3.19	8.67
	69	3.92	8.49		136	4.35	8.97

Date of Sample	Identif'n Number given in Quart'ly Report	Percentage of Fat	Percentage of Solids not Fat	Date of Sample	Identif'n Number given in Quart'ly Report	Percentage of Fat	Percentage of Solids not Fats
May 18	137	3.29	8.66	Oct. 25	250	4.90	9.09
	138	3.86	8.71		251	3.70	9.31
	139	3.30	8.12		252	3.72	8.50
19	140	3.02	8.95		253	3.91	8.66
July 20	171	3.33	8.77		254	4.80	9.09
	172	3.42	8.76		255	3.92	9.21
	173	3.02	8.43	30	256	3.96	9.03
	174	3.73	8.61		257	4.12	8.98
	175	3.28	8.89		258	4.02	9.12
	176	3.80	9.08		259	4.31	9.47
Aug. 8	184	3.02	8.50		260	3.34	9.45
	185	4.20	7.49	Nov. 13	272	3.82	8.57
	186	3.34	8.98		273	3.69	8.78
	187	3.99	9.02		274	3.38	8.96
	188	3.43	8.67		275	4.20	8.62
	189	4.99	9.06		276	3.20	9.09
20	190	3.50	8.50		277	3.54	8.68
	191	3.35	8.75	23	284	3.85	8.16
29	198	4.48	8.62		285	3.82	8.74
	200	3.92	8.74		286	3.80	8.70
	201	3.70	9.10		288	3.81	8.71
	202	3.07	8.74		289	3.73	8.81
	203	3.46	8.57		290	3.43	9.21
Sep. 26	227	3.19	9.34	Dec. 10	296	3.85	8.87
	228	3.98	8.87		297	3.33	8.71
	229	4.08	8.97		298	3.90	8.84
	230	3.08	8.97		299	3.06	9.14
	231	3.20	8.97		300	3.66	8.98
	232	4.53	8.56		301	4.28	9.10
					306	3.91	8.99

AVERAGE PERCENTAGE:—Fat, 3.76; Solids not Fat, 8.73

PUBLIC HEALTH (Milk and Cream) REGULATIONS, 1912.

Report for the year ended 31st December, 1917.

1. Milk, and Cream not sold as Preserved Cream.

	(a) Number of samples examined for the presence of a preservative.	(b) Number in which a preservative was reported to be present.
Milk ..	133	—
Cream ..	—	—

DEFENCE OF THE REALM ACT.

Orders made by the Ministry of Food.

On the 8th May, 1917, an Order called "The Local Authorities (Food Control) Order (No. 1) 1917, was made by the Local Government Board, conferring and imposing upon local Authorities and their Officers certain powers and duties in connection with the enforcement of certain of the Orders made by the Ministry of Food, and a number of the Orders then and subsequently made by the Food Controller, were allocated to be carried out by the the Officials of the Public Health Department, the Inspector of Weights and Measures and the Police.

This arrangement continued in force until the end of November, 1917, when the enforcement and carrying out of the various Orders was taken over by the Food Control Committee and their Officials.

During the time the arrangement was in operation a large number of enquiries, approximately about 520, were made, and visits paid to various shops by the Inspectors of the Public Health Department.

The following is a list of the prosecutions instituted by the Public Health Department during this period, viz:—

Selling coloured haricot beans at a price exceeding the price fixed by "The Beans, Peas and Pulse (Retail Prices) Order, 1917." Summons withdrawn.

Selling Jam at a price exceeding the price applicable in "The Jam (Prices) Order, 1917."	Ditto	Ditto	Fined £5
	Ditto	Ditto	Fined £5
Selling a mixed Jam in which the amount of one of the fruits therein was less than 25 per cent of the total amount of the fruit contained in the Jam.			Summons withdrawn
	Ditto	Ditto	Ditto
Selling Jam at a price exceeding the price applicable in "The Jam (Prices) Order, 1917."			Fined £5
	Ditto	Ditto	Fined £5
	Ditto	Ditto	Fined £5
	Ditto	Ditto	Fined £2
	Ditto	Ditto	Fined £5

The Contagious Diseases (Animals) Act, 1886.

The Milkhouses.—The regulation of dairies, cowsheds, and milk-shops, and the supervision of milk-sellers, has had systematic attention for a number of years. Special care is taken that the ventilation, lighting, cleansing, draining, and water supply of premises used for the milk-trade are thoroughly efficient. The register of milk-sellers is revised week by week. The total number of milk-shops is 194, in addition there are 37 purveyors of milk, 10 cowsheds, and 40 farmers resident outside the Borough, registered to purvey milk inside the Borough.

Meteorological Results.

I am indebted to W. E. Plummer, Esq., M.A., F.R.A.S., the Director, for the following return from the

LIVERPOOL OBSERVATORY, BIDSTON, BIRKENHEAD.

1917	Mean Tempera- ture	Mean Barometer	Rainfall 1 ft. above ground
	° F	Inches	Inches
January	35.7	29.947	1.537
February	34.9	30.155	1.721
March	37.6	29.841	2.890
April	41.5	29.900	2.247
May	54.4	29.997	3.451
June	58.0	30.026	1.705
July	61.8	30.066	1.243
August	59.8	29.671	5.716
September	57.7	30.012	1.133
October	47.1	29.685	5.299
November	47.6	30.051	2.298
December	38.7	30.229	1.333

Mean Barometer for the whole year 1917=29.965 inches.

Mean Barometer for the past 50 years=29.920 inches.

Number of wet days in 1917=183.

Total amount of rainfall at Bidston. 1917=30.593 inches.

Average rainfall for last 50 years=28.354 inches

Mean Temperature for 1917=47°9

The figures for the years 1867—1899 are given in my Report for 1904, and those for the years 1901—1916 in my Reports for those years.

PREVALENCE OF ZYMIC SICKNESS DURING 1917.

Notification of Cases of Dangerous Infectious Diseases.—The Infectious Disease (Notification) Act, 1889, requires householders and medical men in attendance to notify cases of dangerous infectious diseases to the Sanitary Authority, and gives facilities for supplementing the statement of the mortality from zymotic diseases, month by month, as they were reported. The diseases which require to be notified to the Authority as "dangerous infectious diseases" are:—

Small-pox.	Typhus.
Scarlatina.	Typhoid.
Diphtheria.	Continued.
Membranous Croup.	Relapsing.
Erysipelas.	Puerperal Septicæmia.
Cerebro Spinal	Acute Poliomyelitis.
Meningitis.	Cholera.
Measles and German Measles.	

The cases notified appear in the following return, showing that 505 cases were notified during the year, being 95 more than the

number notified last year, excluding Measles and German Measles.

The following Table gives the number of Notifications of Dangerous Infectious Diseases in each month of the year.

1917.	Smallpox	Scarlatina	Diphtheria & Men. Croup	Typhus	Typhoid	Puerperal Fever	Fever	Erysipelas	Poliomyelitis	Cerebro Spinal Men.	Cholera	Measles	German Measles	Total
January ...	13	10	..	..	1	..	13	..	..	..	..	232	3	272
February ...	9	6	..	..	1	..	4	..	..	..	..	116	8	144
March ...	8	11	..	..	..	..	4	..	1	..	..	125	35	184
April ...	10	5	..	..	1	..	5	..	..	..	..	84	60	165
May ...	10	8	..	..	..	..	7	..	..	..	..	111	45	182
June ...	7	8	..	..	..	..	..	..	..	..	..	63	15	93
July ...	9	4	..	..	1	..	2	..	..	..	..	43	8	67
August ...	15	1	..	..	1	..	4	..	..	..	..	19	4	45
September ...	23	14	..	..	1	..	5	..	..	..	..	4	2	49
October ...	48	11	..	..	5	..	6	..	..	..	..	1	1	72
November ...	100	10	..	..	2	..	8	..	..	..	..	23	4	147
December ...	64	22	..	..	1	..	4	..	..	..	..	29	5	125
Total ...	316	110	..	11	4	..	62	..	2	..	..	850	190	1545

The figures for the years 1882-1903 will be found at page 25 in my report for 1905, and for 1904-1914 on page 59 in my report for 1914.

SMALL-POX.

No cases were notified during the year.

MILITARY & NAVAL CASES OF INFECTIOUS DISEASES notified during the year ended 31st December, 1917.

17 Military and 4 Naval cases were notified during the year, viz:—

Diphtheria	...	...	...	...	1
Scarlet Fever	...	...	...	...	3
Typhoid Fever	...	...	...	...	4
Erysipelas	...	...	...	...	2
Measles	...	...	...	...	5
German Measles	...	...	...	...	6

Tuberculosis.

In addition, 15 Military cases of Pulmonary and 1 Military case of non-Pulmonary Tuberculosis were notified during the year.

I am indebted to the Borough Surveyor for the following information relating to the

Number of New Houses erected and demolished in the Borough.

		Erected.	Demolished.
January 1st to December 31st, 1914	..	246	18
„ „ „ 1915	..	136	32
„ „ „ 1916	..	28	1
„ „ „ 1917	..	1	18
		<hr/> 411	<hr/> 69

The number of houses demolished since taking of Census in 1911 was 183, a net gain of 104.

The figures for each year 1892—1916 are given in my report for 1916 (page 37).

VITAL AND MORTAL STATISTICS FOR THE YEAR.

Area—The Borough has an area of 3850 acres, or a little more than six square miles.

Population.—The Census was taken in England and Wales on April 2nd, 1911, and showed the number of persons in Birkenhead to be 130,794, being 19,879 more than the number shown in the Census taken on April 1st, 1901.

At the time of the 1901 Census the number of inhabited houses was 19,744, giving an average number of persons per house of 5.6; the number of houses in the Borough at the time of the 1911 Census was 24,343 giving an average number of persons per house of 5.3.

I estimate the population in 1917 as 144,993 (see page 9).

I am indebted to the Chief Constable for the following Return of uninhabited property in the Borough of Birkenhead for the half year ending 31st December, 1917:—

District	Half-year ended 31st Dec., 1917.					Half-year ended 30th June, 1917.				
	Private Houses	Shops	Cot-tages.	Dock Cottages	Total	Private Houses	Shops	Cot-tages	Dock Cottages	Total
Birkenhead ..	29	53	1	..	83	35	76	3	..	114
Claughton and Oxton ..	75	16	..	70	161	91	12	..	70	173
Tranmere and Bebington ..	7	36	..	..	43	9	60	..	..	69
Totals	111	105	1	70	287	135	148	3	70	356

Total uninhabited and unoccupied property, 31st December, 1916, was 398, so there was a decrease of 111 at the end of 1917, as compared with the previous year.

DWELLING HOUSES, &c.

The approximate estimate of dwelling-houses of all descriptions within the Borough, including Institutions, at 31st December, 1917 26,834

The approximate estimate of schoolrooms, warehouses, &c. 1271

Births and Deaths in Birkenhead.—During the year 1917 there were recorded 3261 births and 1932 deaths in the Borough of Birkenhead. The natural increase in the population in 1917 was therefore 1329. Of the births 1625 were males and 1636 were females; of the deaths 1016 were males and 916 were females.

The following table shows the revised estimated population of Birkenhead, the density of population and the number of births, deaths and zymotic deaths, and also the birth and death rates deducible from these figures for the years 1900 to 1917. These figures for the years 1878 to 1899 were given in my reports for

the years 1898 and 1899. This table has been revised since the figures of the 1911 census have been published.

Year	Revised Estimated Population at Midsummer	Persons per acre.	BIRTHS.		DEATHS.		ZYMOTIC DEATHS.	
			Number of Births	Birth rate per 1000 per annum	Number of Deaths	Death rate per 1000 per annum	Number of Deaths	Death rate per 1000 per annum
1900	110,042	28·5	3428	31·1	1965	17·8	209	1·8
1901	111,377	28·9	3230	29·0	2061	18·5	353	3·1
1902	113,231	29·4	3646	32·1	1989	17·5	270	2·3
1903	115,117	29·9	3516	30·5	1937	16·8	260	2·2
1904	117,034	30·3	3805	32·5	2282	19·4	465	3·9
1905	118,982	30·9	3707	31·1	1833	15·4	239	2·0
1906	120,961	31·4	3733	30·8	2078	17·1	371	3·0
1907	122,978	31·9	3727	30·3	1829	14·8	253	2·0
1908	125,026	32·4	3775	30·1	1929	15·4	267	2·1
1909	127,108	33·0	3737	29·4	1930	15·1	190	1·4
1910	129,227	33·5	3730	28·8	1993	15·4	251	1·9
1911	131,377	34·1	3732	28·4	2107	16·0	304	2·3
1912	133,521	34·6	3774	28·2	1964	14·7	197	1·4
1913	135,740	35·2	3907	28·7	2032	14·9	205	1·6
1914	137,996	35·8	3772	27·3	2153	15·6	244	1·7
1915	140,291	36·4	3844	27·4	2193	15·6	211	1·5
1916	142,622	37·0	3845	26·9	2034	14·2	196	1·3
1917	144,993	37·6	3261	22·4	1932	13·3	117	0·8

On page 61 of my report for the year 1914 is a table giving the estimated populations of the Wards in the Borough from 1911—1920.

Infantile Mortality during 7 years, 1911 to 1917.

Year.	No. of Births.	Total Deaths of Infants under 1 year.	Deaths from Diarrhoea under 1 year.	Total Deaths of Infants per 1000 Births.	Deaths of Infants from Diarrhoea per 1000 Births.
*1911	3732	509	134	136	35·9
*1912	3774	371	20	98	5·2
*1913	3907	458	68	117	17·4
*1914	3772	462	36	122	9·5
*1915	3844	469	68	122	17·6
*1916	3848	407	55	105	14·2
*1917	3261	313	20	95	6·1

* This is the revised rate after the Registrar General has transferred births from other towns. It cannot be compared with other towns unless we had all their revised rates. The figures for 1904—1910 are on page 64 of my report for 1914.

Causes of Infantile Mortality during the past seven years
(1911 - 1917).

Cause of Death.	YEARS.						
	1911	1912	1913	1914	1915	1916	1917
Chicken-pox .....	..	..	..	4	1	..	1
Mumps	5	7	2	12	2	7	4
Scarlet Fever	1	..	..	..	..	..	1
Diphtheria and Mein Croup	1	2	4	1	2	..	..
Whooping Cough	13	20	15	16	21	14	8
Diarrhoea	134	20	68	36	68	55	20
Enteritis	24	19	64	58	56	35	30
Gastritis	7	5	12	2	8	5	3
Premature Birth	53	60	50	67	64	64	35
Congenital Defects	24	17	15	17	23	22	17
Teething	7	4	6	4	2	6	8
Inanition and Privation	10	17	11	10	..	..	..
Debility	65	70	81	80	92	70	78
Tabes Mesenterica	5	1	2	2	1	1	..
Other Tubercular Diseases	14	8	10	8	7	14	13
Erysipelas .....	..	2	..	3	..	1	1
Syphilis	1	2	6	7	2	6	6
Rickets	1	..	1	1	..	..	..
Meningitis (not tuberculous)	7	6	5	5	2	5	5
Convulsions	18	9	14	14	11	11	10
Bronchitis	41	24	27	26	27	14	16
Pneumonia	40	31	33	64	49	49	35
Heart Disease	2	9	1	1	..	..	1
Suffocation, overlaying, etc.	7	13	8	10	8	3	4
Other Causes	29	25	23	14	23	25	17
Total Deaths per annum	509	371	458	462	469	407	313
No. of Births per annum	3732	3774	3907	3772	3844	3848	3261
Death Rate per 1000 per annum per 1000 Births	136	98	117	122	122	105	95

The figures for 1906-10 are given in my report for the year 1916.
Average Death Rate per 1000 per annum, per 1000 Births for the 7 years 1911 to 1917,
equals 113.

The Table shewing the comparative Birth and Death Rates in the great towns is omitted this year as the population of most of the towns has been greatly altered owing to the movement of troops and war workers during these special times, and the rates therefore would not be accurate or of any value.

The proportion of Deaths of Infants under One year to the Births registered.—The proportion in Birkenhead Borough in 1917 was equal to 95 per 1000, and compares very favourably with that of other towns, a reduction of 10 per 1000 on last year's return.

The relative proportion of deaths in 1917 among the infants, children and young persons, adults and old people, to the whole number of deaths, in certain sub-divisions of the borough, in the

premises controlled by the Guardians of the Poor, and in the entire incorporated area, is readily shown in tabular form, thus:—

Percentage of Deaths at certain ages to Total Deaths.	Under 1 Year	Age between														83 years and upwards.
		1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-75	75-85	
Birkenhead and Claughton	10.86	3.72	1.34	0.77	0.72	1.33	0.82	0.82	0.87	1.96	3.72	5.53	6.98	5.64	4.65	1.08
T'mere & Oxton	4.34	0.98	0.67	0.56	0.31	0.72	0.62	0.46	0.67	1.50	2.22	3.15	4.08	4.39	3.67	1.93
Bebington	0.25	0.15	...	0.05	...	...	0.05	...	0.20	0.25	0.10	0.46	0.10	0.10	0.10	0.10
Union Hospital and W'thouse	0.72	0.31	0.15	...	0.15	0.36	0.41	0.57	0.82	2.43	2.79	2.95	4.03	1.86	0.31	0.31
Birkenhead Borough	16.20	5.17	2.17	1.34	1.08	2.27	1.81	1.70	2.17	4.29	8.38	11.64	14.28	14.18	10.66	2.53

In this respect the local mortality compares favourably with the mortality in most great cities and boroughs. The percentages taken out for Bebington have little significance, the number of deaths being so small.

The following Table shows the Mortality of the different Wards:—

1917	Estimated Population at Midsummer 1917.	Deaths from All Causes		Deaths from Zymotic Diseases		Death rate per annum.	Infantile Death Rates per 1000 Living	No. of Deaths under 1 year
		M.	F.	M.	F.			
Cleveland Ward ..	26302	168	173	14	7	12.9	2.7	72
Claughton ..	8873	35	42	3	3	8.7	1.0	9
Grange ..	29130	186	185	18	15	12.7	3.0	90
Argyle ..	16724	113	83	9	5	11.7	2.3	39
Oxton ..	5308	17	24	1	1	7.7	0.3	2
Egerton ..	19058	108	100	4	9	10.9	1.5	29
Clifton ..	26509	113	117	9	5	8.6	1.3	36
Mersey ..	9149	58	32	3	..	9.8	1.8	17
Bebington ..	3940	15	17	..	2	8.1	1.2	5
Union Hospital ..	..	203	143	5	4	..	..	14
Birkenhead Borough ..	144993	1016	916	66	51	13.3	2.1	313

The Registrar General states that the factor for correcting the general death rate for Birkenhead for the intercensal period, 1912—1921, is 1.0324.

The Classification of Death Causes.—The causes of death, as they appear in Table I. in the appendix, are systematically classified according to the principles laid down by the late Dr. W. Farr, the nosology being that adopted by the Registrar-General until within the last few years, which experience has shown to be well suited for statistical purposes.

Deaths from Zymotic Diseases. The deaths from zymotic diseases include 35 by what have been termed the chief zymotics

(certain diseases belonging to the miasmatic order), viz., measles 17, scarlatina 1, diphtheria 10, membranous croup 3, fevers 3, and puerperal septicæmia 1. The remaining 82 were entered to what have been called minor zymotics (diseases less prevalent, less fatal, or less obviously zymotic in character), viz., whooping cough 26, erysipelas 3, influenza 9, diarrhoea 32, syphilis 7, and other zymotic diseases 5.

Relative Fatality of Chief Zymotic Diseases.

The following table shows at a glance the relative fatality of the chief zymotic diseases for the year on the corrected estimate of population.

Year	Deaths from Zymotic Disease						Death rate per 1000 living.						
	Smallpox	Measles	Scarlatina	Diphtheria	Whooping Cough	Typhoid Fever	Smallpox	Measles	Scarlatina	Diphtheria	Whooping Cough	Typhoid Fever	Diarrhoea
1911	23	5	21	31	8	194	...	0.17	0.03	0.15	0.23	0.06	1.47
1912	52	10	17	49	5	33	...	0.38	0.07	0.12	0.36	0.03	0.24
1913	8	4	20	41	1	100	...	0.05	0.02	0.14	0.30	0.007	0.73
1914	67	6	16	49	4	48	...	0.48	0.04	0.11	0.35	0.02	0.34
1915	7	4	16	42	1	92	...	0.04	0.02	0.11	0.29	0.007	0.65
1916	28	5	10	30	5	70	...	0.19	0.03	0.07	0.21	0.03	0.49
1917	17	1	10	26	3	32	...	0.11	0.006	0.06	0.17	0.02	0.22

Vaccination.—Mr. S. R. Carter, Clerk to the Board of Guardians of the Birkenhead Poor Law Union, has kindly supplied me with the following *latest completed* information relative to vaccination in the Borough, viz. :—

From 1st January, 1917, to 31st December, 1917.

No. of Births	...	...	...	...	...	...	...	...	...	...	...	3387
Successfully Vaccinated	...	...	...	...	...	...	...	...	...	...	...	3067
Insusceptible	...	...	...	...	...	...	...	...	...	...	...	14
Had Smallpox	...	...	...	...	...	...	...	...	...	...	...	—
Number in respect of whom Statutory Declarations of conscientious objection have been received	...	...	...	...	...	...	...	...	...	...	...	465
Died Unvaccinated	...	...	...	...	...	...	...	...	...	...	...	259
Postponed by Medical Certificate	...	...	...	...	...	...	...	...	...	...	...	23
Removed to Districts the Vaccination Officers of which were duly notified	...	...	...	...	...	...	...	...	...	...	...	16
Removed to places unknown or which cannot be traced	...	...	...	...	...	...	...	...	...	...	...	31
In Abeyance, up to 31st December, 1917	...	...	...	...	...	...	...	...	...	...	...	12

There were also 3 cases of successful Primary Vaccination of children under one year of age in the Union Institution.

County Borough of Birkenhead.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of notifications during the period from 31st Dec., 1916, to the end of the week ending Dec. 29th, 1917.

BIRKENHEAD.—Tuberculosis of the Lung (including Phthisis) and other forms of Tuberculosis.

Year.	Population at Midsummer	Number of Deaths.						Other Forms of Tuberculosis			
		Total.		Tuberculosis of the Lung (including Phthisis)				Males (all ages)	Rate per 1000 (all ages)	Females (all ages)	Rate per 1000 (all ages)
		Deaths	Death Rate	Males (all ages)	Rate per 1000	Females (all ages)	Rate per 1000				
1911	131377	160	1.21	98	0.74	62	0.47	31	0.23	20	0.15
1912	133521	150	1.12	80	0.69	70	0.52	34	0.25	23	0.17
1913	135740	168	1.23	104	0.76	64	0.47	32	0.23	27	0.19
1914	137906	141*	1.02	75	0.54	66	0.47	23	0.16	23	0.16
1915	140291	173*	1.23	105	0.74	68	0.48	44	0.3	23	0.16
1916	142622	177*	1.24	104	0.72	73	0.51	36	0.25	25	0.17
1917	144993	172*	1.18	89	0.61	83	0.57	36	0.24	33	0.22
											0.30

* This includes transferable deaths from other places.

The average Phthisis Death Rate for the last 10 years is 1.16 per 1000, equal to 158 deaths per year.

R E P O R T
 ON THE WORK OF THE
Tuberculosis Dispensary,
6 DUNCAN STREET,
 During the year 1917.

Dr. Banks, the Tuberculosis Officer, is at present serving with His Majesty's Forces, and during his absence Dr. Fountain Browne has acted as locum tenens.

I am happy to say that cordial relations have continued to exist with the medical practitioners of the Borough, and also with the various agencies dealing with the sick poor.

The extent of the work carried out is indicated in the tables given below.

STATISTICS AS TO NOTIFICATION OF TUBERCULOSIS (all forms) during 1917.

Total Notifications	...	...	836
Primary Notifications	...	...	481
Duplicates	...	...	355

The Notifications were as follows:

Pulmonary	...	...	...	...	342
Brain	...	...	...	...	22
Glands	...	...	...	...	44
Bones and Joints	...	...	..	...	28
Peritoneum	...	...	...	...	33
Skin (Lupus)	...	...	...	...	3
Larynx (Primary)	...	...	...	...	1
Bladder	...	...	...	...	1
Kidney	...	...	...	...	1
Testes	...	...	...	...	2
General	...	...	...	...	4
Total Non-Pulmonary	..	...	...	...	139

PULMONARY TUBERCULOSIS.

Cases in the Borough December 31st, 1916	...	562
Cases notified during 1917...	...	342
<hr/>		
		904
*Died during 1917 ...	...	164
Removed from Borough ...	...	22
Not traceable ...	...	5
		<hr/> 191

Corrected total of known cases of Pulmonary Tuberculosis living in the Borough, December, 31st, 1917 713

*This number differs from that in the Registrar-General's return on which death-rates are calculated, the latter containing a few transferable deaths from other districts.

INVESTIGATIONS INTO SOURCES OF INFECTION.

Of the 481 cases notified it was possible to secure information on this point in 456 cases.

Cases in which the diagnosis was subsequently found to be incorrect have been omitted.

	Pulmonary	Brain	Glands	Bones&Joints	Peritoneum	Skin (Lupus)	Primary Larynx	Bladder	Kidney	General	Testes
Known to have associated with a person suffering from the disease at home	127	7	18	12	12	3	0	0	1	2	0
Known to have associated with a person suffering from the disease at work	56	0	1	1	0	0	0	0	0	1	0
Family history of Tuberculosis, but patient not actually in contact	35	1	4	4	3	0	1	0	1	0	1
No family history of Tuberculosis, and no contact with any known case	108	13	19	10	11	1	0	1	0	1	1

INCIDENCE OF TUBERCULOSIS ACCORDING TO THE NUMBER OF ROOMS OCCUPIED BY THE FAMILIES.

The investigations detailed below refer to 430 households, at the time of the nurse's first visit.

No. in Family	No. Occupying									
	1 room	2 rooms	3 rooms	4 rooms	5 rooms	6 rooms	7 rooms	8 rooms	9 rooms	10 rooms
1	...	1	...	1	...	...	...	...	...	...
2	1	1	2	8	5	7	2	5	...	...
3	2	6	6	19	21	2	5	2	...	...
4	1	2	18	24	24	10	5	...	...	...
5	...	3	11	14	27	3	4	2	...	...
6	...	...	10	15	34	12	2	4	...	1
7	...	1	10	16	20	4	1	1	2	...
8	...	...	...	7	11	4	1	1	...	...
9	...	...	2	3	10	1	1	...	1	...
10	...	...	...	1	4	2	...	...	1	...
11	...	...	...	...	...	...	1	...	...	...
12	...	...	...	...	1	...	1	...	...	...
13	...	...	...	...	...	...	...	...	...	...

Preventive Work.

The most important part of the preventive work is the home visitation, whereby the patient and his relatives are instructed in the precautions which should be taken to prevent the spread of the disease, and encouraged to adopt the modes of life best calculated to preserve good health. The Visitors are, on the whole, well received, and the results of their constant supervision over many of the poorer homes have been gratifying.

Number of visits paid by Nurse Bradshaw... 1045
 Sanitary defects notified to the Medical Officer of Health's Department 1
 No. of houses where disinfection was carried out after death, or removal 218

Handkerchiefs and Spitting Flasks.

To encourage patients to take precautions with infectious sputum, spitting flasks are provided free of charge. During the

year 116 flasks were given. Arrangements were made for supplying patients with Japanese paper handkerchiefs at a charge of ninepence halfpenny per hundred, the cost price; the object of this is to encourage the patients to use the handkerchiefs in the manner explained to them at the Dispensary. Many patients availed themselves of the arrangements.

Educational Work.

The personal instructions of the health visitor regarding the prevention of the spread of Consumption are supplemented by the distribution of pamphlets and pictures. During the year the Dispensary published a simple pamphlet compiled by the Tuberculosis Officer, entitled "Advice to Consumptives and Others," and this is distributed widely among the patients.

Other Dispensary Work.

Examination of "Contacts."

In view of the fact that Tuberculosis can only be cured when discovered in a moderately early stage of its progress, efforts are made to detect early cases of Tuberculosis occurring in those who have lived in close contact with notified cases of Consumption, and who have thus run the risk of infection. During the year 15 such persons, suffering from suspicious ill-health were medically examined either at the Dispensary or in their own homes, and among them 2 cases of Pulmonary Tuberculosis were found. Incidentally it may be mentioned that in the course of these investigations other unsuspected illnesses and defects were found and the patients were referred to the appropriate places for treatment.

Co-operation with Medical Practitioners.

The Dispensary co-operates with the Practitioners of the Borough concerning diagnosis (including routine observations of doubtful cases as regards weight and temperature variations); also in securing continuity of treatment by acting as intermediary between the various Sanatoria and the practitioners.

Total number of consultations between Tuberculosis Officer and Practitioners for various purposes during 1917, 305.

Laboratory Work.

The Dispensary undertakes free of charge the microscopic examination of sputum and fluids suspected to contain Tuberle Bacilli, in order to assist Medical Practitioners in diagnosis. During the year 545 specimens have been examined, of which 32 were from patients attending the Dispensary, and 397 were sent by Medical Practitioners and 116 by the Army Authorities.

Army Cases.

During the year 165 cases were examined for the Army Authorities, and amongst them 52 cases of Pulmonary Tuberculosis were found.

Treatment

General Treatment is not undertaken, the Dispensary treatment being limited to the application of special methods (*e.g.* Tuberculin) carried on by the Tuberculosis Officer in co-operation with the medical practitioner providing the general treatment of the case. During the year, 2 patients received injections of Tuberculin. Tuberculin is proving a useful aid in the treatment of Tuberculosis, and good results have been obtained in a considerable number of the cases where patients have attended regularly and constantly.

Total Number of Visits to Dispensary.

During the year 584 patients paid 1526 visits to the Dispensary. Of these patients, 391 had not been to the Dispensary before; the remaining 193 had attended during the previous year, and 165 were Army cases.

Provision of Garden Shelters.

The open-air treatment of Consumption can be carried on at home where there is sufficient garden or back-yard to allow of the erection of a simple open-air sleeping shelter. Unfortunately in large towns very few of the houses afford convenience for this. The Corporation has arranged to supply such shelters to suitable patients, at a small rent, and at the end of 1917 two shelters had been provided and are in constant use.

The Corkhill Fund.

Under the will of the late Mr. John Lloyd Corkhill, of Oxton, a sum of money was provided for the assistance of persons suffering from Consumption. An arrangement has been made by which the Trustees, while retaining in every respect their position as a private body, make use of the facilities provided by the Dispensary for carrying on work among tuberculous patients. Persons applying for help from the Corkhill Charity are passed through the Dispensary for classification, and the Trustees are largely guided by the Tuberculosis Officer's recommendations. This charity is doing a very excellent work in the Borough. Applications for assistance may be made to Mr. J. Carlisle, c/o Mr. Edgar Hosking, 34 Castle Street, Liverpool.

During the year 1917, 3 men, 15 women and 1 child received Sanatorium Treatment, of these

1 man was discharged with the disease quiescent.

9 women were discharged with the disease quiescent and

2 others in which no further improvement seemed likely.

There were 2 men, 4 women and 1 child remaining in Sanatorium at the end of the year.

Grants of extra nourishment were allowed to 2 women and 2 children.

18 applicants applied and were examined, 2 of whom were found to be unsuitable cases, the remaining 16 being accepted.

**LEASOWE SANATORIUM FOR SURGICAL TUBERCULOSIS
IN CHILDREN.**

Early in 1914 the Birkenhead Corporation decided to arrange for Birkenhead children to be admitted to the Leasowe Sanatorium, and subsequently the Birkenhead Insurance Committee offered to co-operate in the matter. As a result, 12 beds have been available since August 31st, 1914, and the cases admitted are classified below. Since "Surgical Tuberculosis" is

so amenable to cure, under proper conditions, it is believed that the arrangements made will have a far-reaching effect in decreasing the number of deaths or deformities from this cause.

The following table gives the localisation of the disease in the cases treated :—

Tuberculosis of Spine ..	...	...	...	...	8
,, ,, Hip	...	...	...	...	5
,, ,, Knee	...	...	...	...	4
,, ,, Elbow	...	...	...	...	1
,, ,, Metatarsal, Malar and Ankle	...	...	...	...	1
,, ,, Femur	...	...	...	...	1
,, ,, Glands ..	...	...	...	...	0
,, ,, Ankle and Knee	...	...	...	...	1
<hr/>					
Total	...	...	...	...	21
Discharged	...	...	...	...	9
<hr/>					

December 31st, 1917, the number remaining in 12

The nine cases discharged were as follows :—

- 3 cases of Knee, cured
- 1 case of Elbow, improved
- 1 case of Spine and Lumbar Abscess, cured
- 2 cases of Hip Joint, cured
- 1 case of Hip Joint, incurable, transferred to Infirmary
- 1 case of Spine and Psoas developed Amyloid disease, discharged as incurable and sent to Tranmere Infirmary.

National Health Insurance.

The Tuberculosis Officer is the Medical Adviser to the Birkenhead Health Insurance Committee, and Sanatorium Benefit is administered through the Dispensary.

Notifications and National Health Insurance.

The 481 notified cases (all forms of Tuberculosis) are classified as regards National Health Insurance as follows :—

	Pulmonary	Non-Pulmonary	Total.
Insured men	156	8	164
Insured women	34	6	40
Dependents	124	109	233
Non-insured class	17	2	19
No particulars obtainable ..	11	14	25
Total	342	139	481

Insured Persons and the Dispensary.

Statistics were kept throughout the year of the position as regards National Health Insurance of all patients attending the Dispensary for all purposes. The 391 persons who paid their first visits to the Dispensary during the year were classified as follows:—

Insured persons	248
Dependents	113
Non-insured class	30
Total	391

Treatment provided by the Insurance Committee.

The following statistics refer to the work of the Birkenhead Insurance Committee which was transacted through the Dispensary, and refer to the period January 1st to December 31st, 1917, inclusive,

APPLICANTS FOR SANATORIUM BENEFIT, 1917.

	Number of Applicants	Rejected on other grounds than health	Examined	Recommended for treatment	Received treatment	
					Pulmonary	Non-Pulmonary
Men ...	51	0	51	51	51	...
Women	21	0	21	21	21	...
Total ...	72	0	72	72	72	...
Military Cases not included above ...	26	0	20	23	21	2

Out of 77 male applicants, 71 were examined, and 20 were military cases.

TREATMENT GIVEN.*

	Men	Women	Total
Sanatorium	24	11	35
Hospital	7	...	7
Domiciliary	136	52	188

*N.B.—This table refers to cases remaining under treatment on December 31st, 1916, as well as those whose first application were received during 1917. Many of the cases received more than one kind of treatment, and appear under different headings in the Table. Refer also to the section of the work of the Dispensary, under the heading of "Treatment." Domiciliary treatment was supplemented by the provision of extra nourishment in necessitous cases.

Results of Treatment.

The following figures must be construed with great care and hasty conclusions avoided. It must be distinctly borne in mind that they cannot be used to compare the value of one kind of treatment with another, because they refer to entirely different classes of cases, and different degrees of disease.

1917	Sanatorium		Hospital		Military Cases		
	Men	Women	Men	Women	Sanatorium	Hospital Cases Pul- mona- ry	Hospital Cases Non-pul- mona- ry
Discharged (including those transferred from one form of treatment to another):—							
(a) fit for work	9	7	...	...	3	2	...
(b) improved	3	1	...	...	1	3	...
(c) without improvement	...	...	...	...	...	...	...
(d) worse	...	...	...	...	...	...	...
Discontinued for other than medical reasons	...	...	...	...	...	...	...
Died	...	...	...	...	...	...	...
Total cases in which treatment concluded	12	8	...	...	7	5	...
Still under treatment	1	3	...	...	4	2	...
TOTAL TREATED	13	11	...	...	11	7	...

DOMICILIARY TREATMENT.

1917	Men	Women
Completed Domiciliary Treatment:—		
(a) Fit for work	15	9
(b) Recommended for other forms of treatment	12	5
Discontinued for other than medical reasons	11	5
Died	41	6
Total treatment concluded	79	25
Still under treatment	57	27
	136	52

TUBERCULOSIS DISPENSARY.

The number of Insured Persons who have attended during

1914 191

1915 134

1916 175

1917 248

Total ... 748

Of this number 426 applied for Sanatorium benefit. The

remainder were either found to be not suffering from Tuberculosis or were too far advanced with the disease to benefit by such treatment, most of these latter subsequently entered the Union Infirmary.

The total "number of persons, other than insured persons," examined and treated at the above Dispensary since 1st October, 1913 (the date from which Statistics were kept) up to 31st December, 1917, is as follows, viz :—

(a) Males	...	...	117
(b) Females	...	...	226
(c) Children (Males and Females under 16 years of age)...			786
			—
			1129
			—

Of this number, 698 patients were found not to be suffering from Tuberculosis, leaving a balance of 431 cases, i.e.,

Males	...	...	56
Females	...	...	138
Children	...	...	237
			—
			431
			—

Of these cases, 9 Males, 29 Females and 5 Children received Sanatorium treatment under the Corkhill Fund, with the following result :—

7 of the Males were discharged as quiescent and 2 are still in Sanatorium.

22 of the Females were discharged as quiescent, 4 were discharged without improvement and 3 are still in Sanatorium.

2 of the Children were discharged as quiescent, 2 were cured and 1 is still in Sanatorium.

39 of the Children have been sent by the Corporation to the Leasowe Sanatorium, as follows :—

14 cured but still under observation.

9 improved , ,

2 transferred to the Union Infirmary—no improvement

1 removed by mother against advice of Medical Officer.

1 died.

12 still remain in Sanatorium.

38 Children were advised to have operations performed, which were carried out at different Hospitals, and these cases are now considered cured.

The following number of cases have received Tuberculin treatment at the Dispensary, viz:—

Males	...	...	8
Females	...	...	28
Children	...	...	45
Total	...		81

Of the 431 cases above referred to, 135 have left the Borough or cannot be traced, 96 have died and 162 cases are still receiving treatment at the Dispensary.

Inquests.—The number of inquests held during 1917 was 135, thus 6·9 per cent. of the sum of the deaths in the Borough formed the subject of official enquiries. There were no deaths due to overlaying during the year.

Deaths not Certified.—Not all the death causes which are classified represent diseases or symptoms observed and certified by medical men in attendance during the last illness, or verdicts following official investigation. A significant proportion of the death causes are entered in the register on the doubtful testimony of deceased persons' relatives or friends, or fellow lodgers. The registrars have, therefore, been required to mark in the returns furnished, every death not certified by a registered practitioner, or made the subject of a coroner's inquest. In 1917, out of the 1,932 deaths registered, 12 were marked "not certified," that is 0·62 per cent. The causes of the 12 deaths

were entered in accordance with the statements of persons giving information to the registrars as follows:—

Premature Birth	...	...	...	...	3
Congenital defects	...	...	...	...	1
Inanition	...	...	...	...	1
Asphyxia due to delayed birth	...	...	...	...	1
Hæmorrhage of Lungs	...	...	...	...	1
Acute Spasmodic Laryngitis	...	...	...	...	1
Natural Causes, probably Heart Failure	...	...	...	...	1
Degeneration of Heart Vessels	...	...	...	...	1
Senile Decay	...	...	...	...	1
Epilepsy	...	...	...	...	1

though how such conclusions were arrived at does not appear. In my opinion such deaths ought not to be registered without a Coroner's certificate.

The proportion of uncertified deaths to the sum of the deaths was as already stated, 0·62 per cent. as compared with 0·14 per cent. in 1916.

Illegitimate Births and Deaths, 1917.

The following table gives the total number of legitimate and illegitimate births, with the rates per 1000 of births and per 1000 living, and statistics relative to the deaths of such children under one year of age.

Registrar's Sub-District	Esti- mated Popu- lation 1917.	BIRTHS		ILLEGITIMATE BIRTHS		Total deaths of children under one year of age	Deaths of Illegitimate children under one year of age	Percentage of deaths of Illegitimates to total deaths under one year of age
		Legit- imate	Illegit- imate	to 1000 living	to 1000 births			
Birkenhead ..	72837	1816	94	1·2	51·7	201	12	5·9
Tranmere, Oxton, Claughton, and Bebington and Workhouse ..	72156	1342	66	0·9	49·1	112	13	11·6
Total ..	144993	*3158	160	1·1	50·8	313	25	7·9

*57 births have since been transferred to other places. Hence the difference in total as given on unrevised number.

**HOUSING OF THE WORKING CLASSES ACTS,
1890 to 1909.**

During the twelve months ending 31st December, 1917, a large amount of work was carried out by the Department under the provisions of the Housing of the Working Classes Acts, 1890 to 1909, and the Regulations made by the Local Government Board dated 2nd September, 1910, the particulars of which are as follows, viz. :—

The number of dwelling-houses inspected for the purposes of Section 17 of the Act of 1909, and the Regulations made by the Local Government Board during 1917	...	...	...	...	...	...	394
The number of dwelling-houses, which on inspection, were considered to be in a state so dangerous or injurious (to health) as to be unfit for human habitation	...	...	...	...	...	...	—
During the year no representations were actually made to the Committee, but several reports upon certain blocks of property were in course of preparation for its consideration, but were held over on account of the war	...	...	...	...	...	...	—
The number of dwelling-houses dealt with and made fit for human habitation under Sections 14 and 15 of the Act of 1909	...	...	...	...	...	...	57
The number of dwelling-houses inspected under Section 17 of the Act of 1909, and the Housing Regulations 1910, and the defects found therein remedied under the provisions of the Public Health Act, 1875, and the houses put into a proper and satisfactory condition	...	...	...	...	...	...	218
The number of closing orders made	...	...	...	...	...	...	—
The number of dwelling-houses, the defects of which were remedied without the making of closing orders	—	—	—	—	—	—	—

The number of dwelling houses which, after the making of closing orders, were put into a fit state for human habitation	...	...	...	...	...	—
The number of demolition orders made	...	...	...	...	...	—
The number of dwelling houses demolished	...	...	...	...	21	

I think the year's record must be considered a satisfactory one, under present circumstances.

I am, Gentlemen,

Your obedient servant,

R. SYDNEY MARSDEN,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
TOWN HALL, BIRKENHEAD.

14th April, 1918.

THE INFECTIOUS DISEASES HOSPITAL,
TOLLEMACHE ROAD.

Report for the Year 1917.

HOSPITAL VISITING SUB-COMMITTEE.

MR. ALDERMAN E. G. MASON, J.P., Chairman.

MR. ALDERMAN THOMAS SHAW.

MR. ALDERMAN MICHAEL BYRNE.

MR. COUNCILLOR ROBERT FRAME.

MR. COUNCILLOR W. W. KELLY.

MR. COUNCILLOR D. R. ROWLANDS.

MEDICAL OFFICER.

DR. R. SYDNEY MARSDEN

EXTRA SURGEON.

DR. H. H. ROBINSON.

MATRON.

MISS EMILY YEOMANS.

There has been no addition to the number of beds in the hospital during the year. The full Staff consists of the Matron, 17 nurses, 19 female servants, an engineer, 2 porters and 2 gardeners.

FEVER HOSPITAL.

The total number of patients treated in the hospital during the year was 357; of these 352 were admitted during the year, and 5 remained in hospital from 1916.

The following table gives a summary of the cases treated in the hospital during the year 1917, along with the results obtained.

DISEASES	M.	F.	Re-covered		Died	
			M.	F.	M.	F.
Scarlet Fever—remaining	2	2	2	2	..	..
admitted	94	133	93	132	1	1
Typhoid	5	7	5	6	..	1
Diphtheria	46	50	42	46	4	4
remaining	..	1	..	1	..	..
German Measles—admitted	7	3	7	3	..	..
Measles	4	1	4	1	..	..
Erysipelas	..	1	..	1	..	..
Pneumonia	..	1	..	..	..	1

Out of those admitted, 12 died, giving a death-rate of 3.4 per cent.—a very low percentage.

Military and Naval Cases Treated.

Out of the 352 cases admitted during the year, 13 were soldiers, viz: 1 with Scarlatina, 6 with German Measles, 3 with Measles, 1 with Erysipelas, and 2 with Diphtheria.

One of the cases of Diphtheria died.

By special agreement with the Corporation of Wallasey, small-pox cases from this Borough are now sent to the Wallasey Small-pox Hospital.

THE E. P. SMITH MEMORIAL CONVALESCENT FUND.

FOR PATIENTS WHO HAVE BEEN TREATED IN THE FEVER
HOSPITAL.

There were no suitable cases to receive benefit by the fund during the year 1917.

APPENDIX.

- 1—Vital Statistics of Whole District during 1917 and previous years.
- 2—Causes of and Ages at Death during 1917.
- 3—Cases of Infectious Diseases notified during 1917.
- 4—Infantile Mortality during the year 1917.
- 5—Return of Deaths of Soldiers and Sailors—1917.

TABLE I. shows the deaths registered in the whole Borough during 1917, arranged with reference to the age at which death occurred in each case. They are disposed in four sub-tables—the deaths in the townships of Birkenhead and Claughton in the first, deaths in Tranmere (exclusive of the Union premises) and Oxton in the second, the deaths in the incorporated portion of Higher Bebington in the third, and the deaths in the Union Hospital and Workhouse in the fourth. The deaths of infants are entered up in three columns—those under one year, those of one year and under two years, and those turned two years and under five. Then follow the deaths of children and young persons, those turned five years and under twenty; and of adults those turned twenty and under forty, and those turned forty and under sixty. In the last two columns are the deaths of old people, those turned sixty and under eighty, and those of eighty and upwards.

TABLE II.—Weekly Condensed Register of Meteorological Results for 1917.

Vital Statistics of Whole District during 1917 and previous Years.

Year	Births			TOTAL DEATHS REGISTERED IN THE DISTRICT			NETT DEATHS BELONGING TO THE DISTRICT				
	Nett.		Number	Rate		Number	Rate		Number	Rate	
	Uncorrected Number.	Rate		of Non-residents registered in the District	of Residents not registered in the District		Under 1 year of age	At all ages			
1912	3793	3774	28.2	1920	14.3	36	80	371	98	1964	14.7
1913	3931	3907	28.7	1972	14.5	46	106	458	117	2032	14.9
1914	3790	3772	27.3	2112	15.3	85	126	462	122	2153	15.6
1915	3864	3844	27.4	2227	15.8	138	104	469	122	2193	15.6
1916	3880	3848	26.9	2067	14.4	150	117	407	105	2034	14.2
1917	3315	3261	22.4	2004	13.8	160	108	313	95	1932	13.3

Total Population at all ages - 130,794
 Number of inhabited houses - 24,343

Average number of persons per house 5.3
 Area of District in acres
 (exclusive of area covered by water) 3,850
 Total families or separate occupiers 26,887

At Census, 1911.

Causes of, and Ages at Death during year 1917.

CAUSES OF DEATH.	NET DEATHS AT THE SURVIVED AGES OF RESIDENTS, WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.										DEATHS IN OR BELONGING TO LOCALITIES AT ALL AGES.						TOTAL DEATHS IN PUBLIC INSTITU- TIONS IN THE DISTRICT					
	All ages		Under 1 year		1 and 2 and under 5		3 and 4 and under 15		5 and 6 and under 25		45 and 55 and under 45		45 and 55 and under 65		Up- ward- ward		Bir- ken- head		Bir- thon		Beb- ington	
All causes {	Certified	...	1920	307	100	88	79	75	244	500	527	1920	904	521	77	40	32	346	...	257	...	
	Uncertified	...	12	6	1	1	...	1	2	...	1	12	4	7	1	...	1	...	1	...	2	...
Chicken-pox	4	1	1	1	...	1	1	...	1	1	1	1	1	...	1	...	1	...	1	...
Enteric Fever	3	3	...	...	...	3	...	...	3	1	1	1	1	...	1	...	1	...	1	...
Smallpox	17	17	4	7	5	1	1	...	17	13	4	1	1	...	1	...	1	...	1	...
Measles	17	17	4	7	6	12	...	...	26	14	7	3	1	1	1	1	...	1	...	1
Scarlet fever	1	1	1	1	6	6	...	1	13	7	6	1	1	1	1	1	1	1	1	1
Whooping-cough	26	8	1	5	6	...	4	5	19	5	2	1	1	1	1	1	1	1	1	1
Diphtheria and Membranous Croup	13	...	1	...	...	...	...	...	13	7	5	2	1	1	1	1	1	1	1	1
Influenza	9	9	...	...	...	...	...	...	3	1	2	1	1	1	1	1	1	1	1	1
Enteritis	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Erysipelas	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cerebro-Spinal Fever	...	10	6	10	10	10	10	10	32	66	172	73	41	4	1	2	1	2	4	4	3	3
Other Zygomotic Diseases	...	172	1	2	1	1	1	1	5	6	33	15	15	2	1	1	1	1	2	61	21	3
Phthisis (Pulmonary Tuberculosis)	...	33	7	3	14	14	5	2	1	1	36	8	14	1	1	1	1	1	1	1	1	1
Tuberculous Meningitis	...	36	5	8	8	7	2	2	4	1	1	8	3	4	1	1	1	1	1	1	1	1
Other tuberculous diseases	...	8	...	...	...	...	...	...	...	1	1	5	1	1	1	1	1	1	1	1	1	1
Rheumatic Fever, Rheumatism	...	144	...	...	...	1	1	1	18	72	144	66	41	10	8	1	1	1	1	18	11	11
Cancer, malignant disease	...	158	16	5	3	1	1	1	9	52	72	158	86	38	5	1	1	1	1	23	9	9
Bronchitis	...	75	24	9	6	5	6	5	2	4	8	49	12	3	1	1	1	1	1	6	11	11
Broncho-Pneumonia	...	134	11	9	9	8	12	12	33	32	134	66	46	3	5	1	1	1	1	13	22	22
Pneumonia (all other forms)	...	32	3	2	5	3	3	3	12	4	32	15	9	2	1	1	1	1	1	4	6	6
Other diseases of Respiratory organs	...	80	50	12	1	1	1	1	2	7	8	80	49	17	4	1	1	1	1	9	1	1
Diarrhea and Enteritis	...	9	...	...	...	1	3	3	1	1	1	9	2	3	1	1	1	1	1	3	5	5
Appendicitis and Typhlitis	...	5	...	...	...	1	1	1	1	1	1	5	2	2	1	1	1	1	1	2	1	1
Alcoholism	...	10	...	...	...	1	1	1	7	2	10	2	4	1	1	1	1	1	1	2	1	1
Cirrhosis of Liver	...	63	...	...	4	1	1	1	6	30	12	53	31	17	2	1	1	1	1	3	8	8
Nephritis and Bright's Disease	...	1	...	...	...	...	1	1	1	...	1	...	...	...	...	...	...	...	1	1	1	1
Puerperal Fever
Other accidents and diseases of Pregnancy and Parturition	...	9	...	...	...	...	...	1	8	...	...	9	3	1	2	1	1	1	1	3	1	1
Congenital Debility & Malformation, including Premature Birth	...	135	130	4	5	8	4	14	17	1	1	135	88	35	3	1	2	1	2	6	14	14
Violent Deaths, excluding Suicide	...	65	5	5	5	6	8	4	2	1	65	34	17	4	1	2	1	2	3	5	5	5
Suicides	...	4	...	...	...	5	3	6	2	7	42	112	43	31	2	1	1	1	1	1	19	4
Brain Disease	...	112	5	5	3	4	6	6	7	23	71	188	85	38	7	6	4	4	3	13	13	13
Heart Disease	...	188	1	4	4	11	9	9	33	80	206	385	142	116	16	9	3	9	3	99	62	62
Other Diseases	...	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	1932	313	100	89	7	75	245	502	529	1382	908	528	77	41	32	346	267	267	267	267	267	267

Cases of Infectious Disease notified during the year 1917.

Notifiable Disease.	Number of Cases notified.										Total Cases notified in each Locality (e.g. Parish or Ward) of the District.									
	At all Ages.	Under 1 year	Not ifiable	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 45 years.	45 to 65 years.	65 and upwards.	At large	Clevedon	Oxford	Claudeshill	Cilton	Egerton	Meresby	Bedmerton	Workhouse	Total Cases removed to Hospital	
Measles and																				
German Measles	1040	44	397	613	91	47	7	1	137	177	135	91	97	174	164	37	23	...	15	
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including																				
Membranous Croup)	110	1	33	62	9	4	1	4	19	31	...	4	25	18	8	1	1	1	96	
Erysipelas	62	1	3	7	19	24	8	7	9	9	3	15	14	4	1	1	1	1	227	
Scarlet Fever	316	2	69	200	34	10	1	...	22	35	42	6	14	105	48	33	11	...	...
Typhus Fever	...	1	5	2	3	1	1	7	1	1	1	1	12
Enteric Fever	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Puerperal Fever	4	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Cerebro-Spinal Fever	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary	...	1	6	54	68	137	53	3	49	69	65	4	12	36	39	18	5	9	6	
Other forms of	312	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis	131	9	44	57	10	6	5	...	20	33	19	1	5	29	16	5	3	...	...
Ophthalmia Neonatorum	58	58	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	9	3
Totals	2046	116	493	592	213	229	91	12	254	969	814	102	138	393	304	110	48	10	7	351

Infantile Mortality during the year 1917.

CAUSE OF DEATH.	Under 1-yr.						Total Deaths under 1-yr.		
	1 week	1-2 weeks	2-3 weeks	3-4 weeks	1-3 mos.	1-6 mos.	6-9 mos.	9-12 mos.	12 mos.
All Causes:—									
Certified
Uncertified
Smallpox
Chickenpox
Measles
Scarlet Fever
Whooping Cough
Diphtheria and membranous croup
Prysmelias
Tuberculous Meningitis
Abdominal Tuberculosis
Other Tuberculous Diseases
Meningitis (not tuberculous)
Convulsions
Laryngitis and Croup
Bronchitis
Pneumonia (all forms)
Diarrhea
Enteritis
Gastritis
Syphilis
Rickets
Suffocation, overlying
Injury at Birth
Atelectasis
Congenital Malformations
Premature Birth
Atrophy, Debility, Marasmus
Other Causes
	60	21	6	12	99	65	60	38	51
									313

Net Births in the year { legitimate 3124 illegitimate 137

Net Deaths in the year { legitimate infants 288 illegitimate infants 25

MILITARY AND NAVAL CASES.

The deaths of 18 soldiers and 5 sailors were registered in the Borough during the year 1917, of which 21 occurred in Institutions.

The following are the particulars respecting the deaths, viz:—

Age	Cause of Death	Branch of Service
23	Gunshot	Military
29	Diphtheria	"
35	Pneumonia	"
34	Pneumonia	"
22	Gunshot	"
24	Endocarditis	"
24	Gunshot	"
30	Hæmoptysis	"
29	Shrapnel Wound	"
22	Ulceration of Mouth	"
20	Accidental Fall	"
26	Accidental Fall	"
21	Nephritis	"
27	Abscess	"
37	Phthisis	"
37	Heart Failure	"
23	Gunshot	"
31	Gunshot	"
51	Heart Disease	Naval
16	Phthisis	"
56	Brain Disease	"
35	Heart Disease	"
46	Abscess	"

TABLE 1.—Deaths Registered in the Borough of Birkenhead during the Year ending December 31st, 1917.

TABLE II.—Weekly Condensed Register of Meteorological Results for 1917.

The Meteorological Results are for the 52 weeks ending December 29th, 1917. Mean reading of the Barometer for 50 years reduced to sea level and to 32° Fahrenheit=29.920-in.

